

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

Trade-Name Registered in the U. S. Patent Office.

VOL. LIII. No. 11. WEEKLY.

BALTIMORE, MARCH 26, 1908.

\$4.00 A YEAR.
{ SINGLE COPIES, 15 CENTS

Manufacturers' Record.

PUBLISHED EVERY THURSDAY BY THE
MANUFACTURERS' RECORD PUBLISHING CO.

BALTIMORE.

RICHARD H. EDMONDS, President.
THOMAS P. GRASY, Vice-Presidents.
FRANK GOULD,
VICTOR H. POWER, Treasurer.
I. S. FIELD, Secretary.

RICHARD H. EDMONDS,
Editor and General Manager.

EDWARD INGLE, Managing Editor.

THOMAS P. GRASY,
General Staff Correspondent.

Branch Offices:
New York—52 Broadway.
Boston—170 Summer Street.
Chicago—1114 Fisher Building.
St. Louis—1023 Century Building.

Charleston, W. Va.—ALBERT PHENIS,
Special Correspondent for West Virginia,
Kentucky and Southwest Virginia.

Subscription, \$4 a year
(payable in advance) to United States,
Mexico, Cuba, Porto Rico, Hawaii and the
Philippines.

To Foreign Countries (including Canada) in
the Postal Union, \$6.50 a year.

[Entered at the Baltimore Postoffice as sec-
ond-class matter.]

BALTIMORE, MARCH 26, 1908.

AD HOMINEM.

Southerners who may be disturbed by discussion in Government circles at Washington or from the professorial standpoint in New England of the question of "Southern peonage" should bear in mind that this is a presidential election year. In 1904 the thing took the form of seeking to lead New England labor to believe that they were victims of competition with Southern labor. And some Southern "statesmen" have gulped the bait.

WILLIAM A. COURTEENAY.

William Ashmead Courtenay, type of the men needed by the South today more urgently, perhaps, than at any other time in its history, has closed his earthly career. In spite of hamperings in his youth, or because of them, he made a position of distinction for himself and of usefulness to his fellows and marked a path that men of other generations will profit in treading. Closely identified for nearly half a century with the social, intellectual, political and commercial life of Charleston, S. C., though in middle age building up a successful textile industry at Newry, he left his impress for good upon South Carolina's metropolis in public improvements, betterment of schools and strengthening of finances, and yet found time to exert a far-reaching influence for the welfare of the South and the country generally. With deep convictions resting upon devotion to principle, native ability and wide experience in affairs of many kinds, he was out, wrought immense material damage im-

spoken in denunciation of wrongdoings and evil tendencies and earnest and unremitting in maintaining the right. Temporizing and expediency had no place in his program. The South will miss him.

LEGISLATIVE CHICKENS COME HOME TO ROOST.

Decision by the United States Supreme Court against the constitutionality of recent railroad legislation in Minnesota and North Carolina fully justifies the warnings given to a number of States against committing themselves to legislation bringing the States, upon the question of the rights of individuals, in direct conflict with the Federal Constitution. That the Fourteenth Amendment to the Constitution is, perhaps, the main reliance of the individual for protection in his property rights against State action, while the Fourteenth Amendment is itself of questionable constitutional origin, is regrettable. One could wish that the reliance was upon a higher plane. Nevertheless, the amendment is there, and, because of momentous decisions which have been based upon it affecting matters widely separated from the thought and the purpose of its framers, it will hardly be repealed by legislation directly or indirectly by some outgiving of the Supreme Court in this day and generation. It should not, however, have been necessary for anybody in any State of the Union, and especially any Southern State, where so much depends upon the protection of the individual in the enjoyment of his rights, to be compelled to appeal to any Federal power. There should be in the South a public mind making it impossible for a Legislature to enact a law assailing the rights of the individual, even were there no provision to that end in the Federal Constitution. The existing provision harks back to a time when sobriety of political action and well-balanced intelligence were cast to the winds, regardless of consequences. The country has been paying the penalty ever since for that kind of legislation in national affairs, and the knowledge of that ought to be sufficient to deter any State, especially any State that had borne the brunt of the evil consequences, from imitating or duplicating the spirit that had dominated the national legislation.

Unfortunately, the lesson was lost upon certain Southern States, and, consequently, they essayed legislation, taking no account of fundamental facts which cannot be disregarded if safety and prosperity of the State is to be maintained, pandering to an animosity more or less unreasoning and representing in essence a determination to do a thing simply because of the possession of power to do it. That is simply the lynch-spirit in lawmaking. It manifested a frenzy foreign to the South and bound to pass with the revival of Southern sanity. But the frenzy

immediately, especially in crippling the energies of the railroads, so requisite to the healthy development of the South, and in menacing other corporate enterprises, and opened the way for other damage in strengthening unnecessarily the inclination to look to the Federal Government rather than to the individual State as the source of power in American government. Such a strengthening of the central Government's power makes possible for an evil in legislation to affect the whole country instead of being confined to the comparatively small area of a particular State where temporary aberration might prevail.

Another momentous possibility is suggested in comments made by Attorney-General Young of Minnesota upon the decision. The decision of the Supreme Court trenches closely upon the Eleventh Amendment to the Constitution, prohibiting a suit against a State, which was adopted after the Supreme Court had in 1793 held that a State might be sued by a citizen of another State. In his dissenting opinion to the decision in the railroad legislation cases Justice Harlan dwells upon this trenching upon the Eleventh Amendment, and Attorney-General Young, referring to Justice Harlan's point, is quoted as saying:

It would seem that the decision of the majority overturns all former decisions as to the immunity of States from suit, and in effect repeals the Eleventh Amendment.

It is hoped that a reading of the full text of the Supreme Court's decision will discover that it has not overturned all other decisions of the court as to the right of an individual to bring suit against the State. Such an overturning would undoubtedly subject a number of States in this country to onerous litigation upon questions which the justice of the country has long since held to be closed, and closed righteously, as they involved the flagrant, barefaced, outrageous robbery of a prostrate people. But if the questions should be reopened under this latest Supreme Court decision the people of the South will have no one to thank except the wild politicians who perpetrated the legislation which has brought the States before the United States Supreme Court.

A SNAKE TO BE SCOTCHED.

From Danville, Va., comes a report that five large tobacco raisers of that section have received letters threatening to dig up their plant beds unless they promise to sink their independence in disposing of their crops. The incident has occasioned just alarm, inasmuch as it reflects the spirit which has begotten so much lawlessness in the tobacco-growing sections of Kentucky, and has even spread into Tennessee. Organizations of tobacco growers, seeking to combat combination through combination, have disclaimed responsibility for the many outrages against individual rights which have been perpetrated as a result of the campaign which they have been waging. But it is hardly

necessary to suggest that had that campaign not been inaugurated there would have been no deep-seated and widespread lawlessness as that terrorizing some of the most attractive sections of Kentucky and now threatening Virginia. It is hoped that Governor Swanson, who has demonstrated his readiness and ability to meet satisfactorily other emergencies, may bring all the power that he possesses to bear upon this new demonstration and "scotch the snake" at once. His success in that direction will not only benefit Virginia, but it may be expected to set the pace for a handling of the problem in the State of its origin and prevent its policy from being extended to the domain of other great crops of the South, whose growers have been moved to organize for perfectly legitimate purposes. The cowardice characteristic of the night riders is the cowardice of any mob. The terrors that it inspires are removable. Unrebuked, it readily becomes the cover for outrages against individuals not even remotely connected with the problems giving birth to it.

BRINGING SELLERS AND BUYERS TOGETHER.

In a letter published in the MANUFACTURERS' RECORD of March 12 giving some particulars regarding the reclaiming of Louisiana prairie lands by drainage, mention was made of a certain ditching machine which was being used for this work. This machine, it seems, had never been advertised, and it turns out to be a recent invention, but as indicating how closely all information of this kind is read, we have a letter from the Southern Machinery & Equipment Co. of Lynchburg, in which, referring to the matter, they ask for particulars about the machine, and add:

From the fact that these particulars are mentioned we presume the machine is on the market, and we would very much appreciate your putting us in touch with the manufacturers of same at the earliest possible date, as we are in the market for a number of these machines.

This is but another illustration of the very great value of the MANUFACTURERS' RECORD in bringing buyers and sellers of machinery and equipment of all kinds into touch.

THE LIMITLESS OPPORTUNITIES FOR BRAIN-POWER.

A dispatch from Cincinnati states that a student attending the city high school wrote to Mr. W. J. Bryan and asked for an answer to this question:

What chance has the poor boy, and how can brains win in a contest with money?

And that in reply Mr. Bryan wrote:

The poor boy has no chance, unless he can arouse the people by using his tongue. The corporate powers are busy misleading the people, and are responsible for shutting out the poor boy.

We hope that Mr. Bryan made no such foolish statement. It is so wholly untrue, so misleading, that it is scarcely conceivable that a man of average intelligence would put forth such a statement, and, therefore, we trust that this

is not to be added to the list of other misinformation which Mr. Bryan has put forth during his strenuous life of the last 12 years.

However, whether Mr. Bryan made the statement or not, the view expressed is one held by a good many people who have not studied the matter, and is one which young men and boys of today have to a considerable extent been encouraged to adopt. It is so false that it is difficult to find language to express its utter absurd falseness. In all the records of human history there never has been a time in which the poor boy had such opportunities as today, nor a time in which brains counted for so much. The very abundance of wealth has lessened its influence as compared with brains. The world's supply of brains, well trained and well developed, has not kept pace with the world's increasing supply of money. The latter has become relatively of much less importance as compared with energy and brain-power than ever before. The great business enterprises of the day find it far more difficult to secure the right kind of brains—the brains of creative, initiative power, the brains that can do things—than to find money. It is much easier to find a dozen men who can provide capital needed for business enterprises than it is to find one man who can take that capital and make a success of some great industry. Brain-power counts in every line of the world's activities, in the pulpit, in the press, in railroad and industrial life, in the creation of new industries or the opening of new avenues for the employment of men and money as it never did in any preceding time in the world's history. Illimitable beyond the power of words to express is the opportunity of the poor boy of this day. Talk about lack of opportunity or the poor boy's inability to succeed because of the power of money! Why, the whole world is teeming with opportunities! There are a thousand chances for the poor boy as compared with one that his father or his grandfather had. Talk about the fortunes of today and the magnitude of the business operations of today as limiting the chances for men to succeed! Both are small as compared with what the next 20 or 25 years will show. A quarter of a century from now men will look back at this present era of agitation and unrest and wonder that our vision could have been so narrow, our horizon so contracted, our brains so inadequate to comprehend the sweep of world development. The fortunes of today will seem small 25 or 30 years hence. The business operations of today, which tax our ability to mentally grasp, will appear trifling when compared with the marvels that are to be wrought in the world's material advancement during the next 25 years.

Let no man charge his own failure to accomplish great things to the conditions that surround him, or to the times. Let no man blame upon present conditions his own failure to measure up to the world's requirements for success. There is nothing the matter with the times, nothing the matter with opportunities, nothing the matter with conditions which make for the broadest development that mankind has ever known, except the inability of the people of the present day to realize the tremendous, mighty changes which are pressing the world forward, but with which they have not been able to keep pace. Lack of energy, lack of initiative, of self-reliance, of a willingness to work not simply 8 hours a day, but 18

if need be; lack of power to see and to seize the opportunities of the hour, are keeping thousands of people from success, while they foolishly attribute their failure to unfavorable conditions, or to domination of the money power. Brain-power is worth more than money power. Its value is increasing far more rapidly than is money's. Man has in him greater potentialities than material resources, but the undeveloped man does not count for much more in his own advancement than the latent resources in the bowels of the earth, untouched by energy, count for the world's advancement in wealth. The demagogue may prate about the power of money, he may appeal to the passions of the public rather than to their reason, but every man who honestly studies the situation stands amazed, overwhelmed with the marvels of the future and the limitless demand which will be created for men by the world's awakening, which is just beginning.

EDUCATION UNDER A BUSHEL.

When, under the auspices of Ogdenism, there was held at Atlanta last December an educational conference in "executive" session, the contrasting thought came to mind, "Neither do men light a candle and put it under a bushel, but on a candle-stick; and it giveth light unto all that are in the house." The use of the bushel was "officially" apologized for at the time as follows:

We have confined ourselves to executive sessions, not because there were any formidable or mysterious plotting under consideration, but simply in order that the interchange of views might be as free and untrammelled as possible. The very informality of the sessions and the absence of any specific program made it easy to get down and out of the region of vague generalities and to deal squarely and helpfully with concrete things. The nature of the resolutions illustrates the spirit and trend of the discussions. The absence of a general audience cut out all oratory and made the meeting essentially practical.

One of the participants in the "executive" sessions, after waiting three months in vain for a print of the stenographic report of the proceedings, has lifted the veil to the extent of a couple of printed columns, and concludes with the following remarks:

In listening to the discussions in this conference the thought came that there was great educational value in them and that they should take place in a larger theater than the upper hall of a hotel; in fact, that like discussions should be held at the Conference for Education in the South, in the presence of the several hundreds of people who will be assembled there. I mooted this, but learned that it was impracticable to get up such discussions before a larger audience or to assure their interest with the public. It was because of this very impracticability that the Southern Education Board had arranged for the smaller assembly and invited the educators to attend. This, then, is the real work of the Conference for Education. The big meeting in April is for popularizing the movement.

Students of the 10-year-old Conference for Education in the South will be interested in these "official" utterances. They simply confirm the estimate that intelligence has long had of the Conference. That much-advertised and much-apologized-for aggregation has by its very specific program hampered the free and untrammelled interchange of views. Anxiety on that score on the part of Mr. Robert C. Ogden was illustrated in the *New York Mail* in 1904 as follows:

The position of Mr. Ogden in this remarkable educational journey was illustrated by a story which he tells himself. Of course there was continual danger that somebody would be introduced who would say something indiscreet—something that would make trouble. When certain speakers rose he could not help feeling that he was sitting on a hot plate. But he never betrayed the

slightest uneasiness. His geniality and serene smiling confidence were unbroken. He said that he felt all the time like the man who went into a powder magazine with a lighted cigar in his hand, whistling "I want to be an angel."

Special anxiety on this trip, in spite of the carefully-arranged program, was probably due to the fact that Mr. Ogden had ventured to try Col. Thomas Wentworth Higginson on the South as one of its guests. Be that as it may, the very formality of the sessions of the Conference has given them an aspect of dealing principally with vague generalities and as offering an opportunity for some most remarkable "oratory." It has demonstrated very clearly that the purpose of the Conference is to "popularize the movement." But it is believed that could the members of the "executive committee" of the Conference realize the end of the "movement," should it be permitted to expand, not more than two of them would be willing to serve any longer on the "executive committee" and the South would spew the whole thing out of its mouth.

The movement which the Conference for Education in the South is designed to popularize is the one popularly known as an Ogden Movement financed by the General Education Board. In that connection it is interesting to note the interest manifested by leading New York papers in the finances of the General Education Board revealed in its report for the fiscal year 1907, first given to the public in the MANUFACTURERS' RECORD of March 12. The New York papers naturally compared the value as of June 30, 1907, of the securities held by the Board with the value as of today, and the headlines of their articles are somewhat startling. They were as follows:

[*New York Sun.*]

EDUCATION BOARD POORER.

SECURITIES OF ROCKEFELLER FOUNDATION SHRUNK NEARLY ONE-FIFTH.

[*New York Times.*]

EDUCATION BOARD LOSSES.

INSTITUTION'S ASSETS SHOW \$5,000,000 DEPRECIATION IN MARKET VALUES.

[*New York World.*]

ROCKEFELLER FUND HIT HARD BY PANIC.

STOCKS AND BONDS HELD BY GENERAL EDUCATION BOARD HAVE SHRUNK \$5,000,000.

[*Wall Street Summary.*]

ONE INSTITUTION'S SHRINKAGE LOSS.

GENERAL EDUCATION BOARD HIT HARD BY DEPRECIATION.

Institution Fostered by John D. Rockefeller Heavy Sufferer Through Decline in Market Value of Securities in Its Treasury—Nearly Five Million Dollars Wiped Out Within Six Months—Interesting List of Assets Held.

Of course, these headlines tended to obscure the fact that the shrinkage for the time in market value did not necessarily impair income from the securities, a fact which the General Education Board will doubtless find means to make clear; and deductions from the headlines must have been based upon the theory that the General Education Board, whose report shows considerable interest in call loans, could not have been allowed to dispose of some of its securities between July 1, 1907, and the October panic, used cash thus obtained in making call loans or otherwise advantage-

ously and bought back its securities as soon as they touched the bottom during the panic, thus really adding to its total resources. Sometimes finance takes that turn in New York.

Nevertheless, the thirty-odd "institutions of learning" in the country which are struggling to raise, for the purpose of clinching bargains with the General Education Board, sums two or three times as great as the sums offered them by the Board, are, without realizing it, contributing to a depreciation in the standards of American education immeasurable by the apparent panic depreciation in the securities held by the General Education Board.

CONDITIONS OF RAILROADS.

A member of the Interstate Commerce Commission gave out from Washington a few days ago a statement purporting to show that the railroads have not had such a bad time after all. He undertook to make a comparison between the last six months of 1907 and the same six months of 1906, and as no great decrease of earnings was shown, based on this an argument that the railroads had not been badly hurt. It is difficult to understand the shortsightedness of a public man who makes such statements, especially a man in official position, dealing with railroads. The veriest tyro, in touch with any of the business interests of the country, knows that during 1907 railroad business was expanding to the utmost limit of the ability of the roads to handle traffic, steadily increasing to the extent of every new car and locomotive that could be added, over 1906, during the greater part of the year. The financial panic did not lessen railroad traffic to any large extent for 30 to 60 days after it broke upon the country. The railroads were so far behind in their traffic that it took them till the end of 1907 to catch up with accumulated business. Factories everywhere were crowded with old orders, and they, too, were busy for 30 or 60 days after the financial storm swept over the land in trying to ship their products as rapidly as possible in order to make collections. Naturally, there could have been no important decrease in railroad business during that period. But during the latter part of January the industrial interests commenced to feel the effect of the financial storm and for a month or so the industrial world had to pass through a panic as acute as that which the financial interests had weathered in November and December. Then railroad earnings necessarily dropped with great rapidity. The net earnings of the Baltimore & Ohio, for instance, have declined nearly a million dollars a month for the last two or three months, and other roads have suffered in the same way. In the face of such conditions statements put out by officials of the Interstate Commerce Commission, attempting to mislead the public, wholly inaccurate and unjustifiable, show how little attention should be given to efforts of this kind, made for the express purpose of bolstering up a bad cause. Just as the banks pulled through the financial panic, so the industrial interests of the country are gradually pulling themselves together after the industrial panic. In a country of such matchless resources as ours it is not likely that there can be any long period of acute depression, but it is foolish to attempt to mislead the public by the use of figures which do not apply to present conditions.

A striking illustration of the error of the Interstate Commerce Commissioner

who put forth such a statement is an interview with Chairman McLendon of the Georgia Railroad Commission, one of the men who was carried into official position by the so-called "reform" movement against railroads which swept over Georgia last year. Mr. McLendon is not therefore likely to be over-zealous in defending railroads, and yet he is credited with having put forth a statement in which he said:

All the world knows that there is a period of business inactivity which is universal. The depression in the Pittsburgh district is greater perhaps than anywhere else in the United States. During this great decline in the volume of moving traffic the railroads, all of them, are in pretty bad times. The railway companies are compelled to do business, that is, they are compelled to operate their roads, at all times, and when business falls off they are compelled to adjust themselves to the Procrustean bed of circumstances. I do not believe any of our railroads are going into the hands of receivers, but I believe all of them will be compelled to institute every possible economy of operation in order to meet obligations that cannot be reduced or postponed.

It is a hopeful sign that men who were instrumental in bringing on this depression now admit the burden under which the roads are laboring.

◆◆◆
"MORE."

If there is one predominant idea in twentieth-century industrialism it is that of economy, saving waste in production and in distribution. Followed to its logical conclusion, the idea points straight to quality rather than to quantity as the aim of fruitful production and to use rather than abuse or misuse of products. This idea is the keynote of one of the most suggestive and inspiring volumes given to the world this year.* One of the greatest charms of the volume is the evident fact that its primary motive, devoid of desire for personal applause, gain or preferment, was the effort of a mind seeking truth as to vital social problems to give its findings to others for the benefit of society. It is an odd and fascinating combination of idealism and the practical, a remarkable cross of altruism and materialism. Its author, George Otis Draper, is a younger member of the Massachusetts family, notable as a type of American manhood in private virtues, public service and business and industrial achievements. Growing up in a community where one of his ancestors had participated in a socialistic experiment, Mr. Draper has for 20 years been actively connected with productive enterprises at various points between Eastern Canada and California and including mining, quarrying, building and the manufacture of several lines of machinery and several classes of textiles. He has to his credit a hundred patents for inventions. He is, therefore, fairly qualified by experience to get the point of view of employer or of employee, of producer or of distributor, while his inventive genius is an explanation of the originality of thought and expression brimming with epigrams which carry the reader unwearied from cover to cover of the book.

Mr. Draper's thesis is that more for any individual can be acquired either from a greater share of existing wealth, or a greater share of future product, or a sufficient share in a greater product, or a sufficient share in a better product. In maintaining this thesis the author makes a wide swing through current thought as to social and economic problems, himself making valuable addi-

*More. A Study of Financial Conditions Now Prevalent. By George Otis Draper. Publishers, Little, Brown & Co., Boston. Price \$1 net.

tions to the thought; he discusses the methods of unwarrantable acquisition, the suggested or tried remedies of retaliation and regulation, of the use of finances, of reduction of costs and of partition of profits, and, in conclusion, seems to point to the better product, the quality preferable to quantity, as the desideratum. He says:

That, unfortunately, cannot come through mere legislation or adoption of change in system. It must come through educating our people to know quality and to demand quality. Give us greater quantity and we shall have more time to think of refinements. Even with all our boasted wealth there are millions of our population who do not live in decency—who cannot afford to live in decency. There is not enough wealth now created to enable all to live on the scale our civilization demands. There never will be enough until the lower grades of effort are made more productive by adopting better methods of enlarging the proportion of productive workers. Let our greater effort be given to producing more decencies. A minority can keep up the struggle for the culture which they alone, as yet, appreciate.

The author would hardly have the reader conclude that wealth is of dominating importance. It is mainly of value as an aid to further effort, a mere necessity in the attainment of achievement. Men of activity and imagination are fretting over their lives, hampered by lack of resources. There should certainly be more wealth available for those who care not to gratify personal desire, but rather to do something of purpose—something that betters the world or its people. If we could only limit improper uses, we should force some wealth into fit uses by merely following the lines of least resistance.

The world, in justice, can hardly ask for greater riches till it shall prove worthier of riches—till its women aim to be beautiful and intelligent rather than artificial and superficial, till its men get strong and virile rather than corpulent and sterile. Given enough of the alert and the active, and ideas will ripen quickly. Those quietly aging can assist much if they lend counsel from their experience. Let the successful see to it that they shall use their proceeds well, not joining in the mad rush for dollars with no fixed purpose other than amassing an evidence of prosperity. The mass aspire for wealth to equal the profitless extravagance of the vulgar and to excite comment, whether it be favorable or not.

Progress is necessarily slow. We shall not arrive at perfection in our day or any other day. We can steadily improve by adopting logical betterments if we are brave enough to change.

It took a brave and honest man to write this book. Every intelligent reader will find something in it to confirm his own views; none will agree with the author in all of his findings. But the book cannot fail to excite the comment hoped for by its author. It is a pity that in some way or other this business man's views of live issues cannot in some way or other be given lodgment in the mind of unintelligence as a means of cultivating the reason absolutely necessary for dealing right with the issues.

◆◆◆
THE TEXAS RAILROADS HARD PRESSED.

That 14 railroads in Texas, having four-fifths of the mileage and doing nine-tenths of the carrying business in that State, were more than \$9,000,000 worse off for their operations during the last half of 1907 than they were for the corresponding period of 1906 is the startling information conveyed in a dispatch from Austin quoting H. G. Askew, railroad statistician, on the subject. The figures include data from the Southern Pacific roads, the Gould lines, the Rock Island, the Santa Fe, the Missouri, Kansas & Texas and other leading companies. They show that the total gross earnings of the 14 lines for the six months ended December 31 last were \$44,502,717, a decrease of \$1,653,401 as compared with the corresponding period a year ago; that the operating expenses were \$33,893,125,

an increase of \$4,706,148, and that the charges against income, less miscellaneous credits, were \$12,040,171, an increase of \$2,845,657. These three items, namely, the decrease in gross earnings, the increase of expenses and the increase in charges, show a total of \$9,205,206 as the difference between the prosperity of a year ago and the depression of the present. It is hardly necessary to remark that had there been a continuance of former conditions the railroads in question would now be at least ten or fifteen million dollars better off than they are now, if, indeed, their financial status was not really more improved than that.

The figures here presented display impressively the effects of the many assaults which the railroads of Texas have had to sustain, and it is observed that while there has been a change of bookkeeping in compliance with the Hepburn law, the new method of accounting has not made the least difference as to the showing of either an increase or a decrease or as to the amount thereof.

Yet, notwithstanding these unquestionable evidences of the straits in which the transportation companies are placed, the orders of the Texas Railroad Commission for improvements continue in undiminished volume, and there is talk of legal steps to enforce compliance if the mandates are not obeyed. Apparently no heed is given by the board to financial conditions and their possible influence upon the ability of any railroad to obey its orders, but one company at least has recently answered the commissioners concerning an order to relay track with heavier rail that it is impossible to do the work now because of the state of the money market. All this comes, too, at a time when the business depression causes grave concern and the demands of legislatures for lower freight and passenger tariffs are insistent. Concerning this latter phase of the anti-railroad legislation, it is asserted in connection with the publication of the preceding figures that the Texas lines cannot stand any decrease of rates, but they ought really to be permitted to increase them. Apropos of this it may also be noted that the net deficit of the 14 lines mentioned for the last half of 1907 was nearly \$1,500,000.

How onerous are the demands made upon the lines by the railroad commission is shown in a recent review sent out from Austin, which says that the commissioners' orders issued during the last five months for the purchase of new equipment by the companies amount to a total of \$44,822,900. This is more than the aggregate gross earnings of the 14 principal roads during the last half of 1907. In addition to this, orders were issued for \$6,000,000 of physical improvements. These orders are now pressing especially hard upon the transportation corporations because of the strained state of the money market, and particularly for the reason that investors are conspicuously reluctant to put any of their funds in railroad securities on account of the legislative and political hostility shown toward such enterprises.

But there is another factor in the railroad situation in Texas as well as elsewhere which makes the position of the companies even more uncomfortable and hampers them from doing the very things which the public desires. This is the attitude of employees toward the companies. President Gould, in the annual report of the Texas & Pacific Railway, just issued, says:

There has been no cessation in the de-

mands of labor during the past year, and this growing burden is becoming a serious menace. These demands are not confined to wages alone, but for shorter hours as well, often accompanied by arbitrary stipulations. It is a regrettable fact that the enactment of recent laws to regulate the relations between the employer and the employee, and the threat of still more drastic ones, however well meant, has had the effect to alienate the close relations heretofore existing between the two, and has in large degree robbed the employee of the old-time personal independence and ambition that stimulated him by honest endeavor to win advancement.

In view of all this oppressive environment it is small wonder that the Texas railroads are much worse off than they were a year ago, and it will be surprising if more companies are not compelled to seek the protection of the courts by applying for the appointment of receivers.

◆◆◆
TWO FINANCIAL BILLS.

The Merchants' Association of New York has addressed to the merchants and manufacturers of the United States the following:

"We ask your immediate co-operation with us and with other commercial bodies of the country in opposing the passage of bill No. 3023 now pending in the United States Senate, known as the Aldrich currency bill. It should be defeated either there or in the House, to which it will go if passed by the Senate.

"This bill is opposed to your interests, for—

"1. It purports to provide currency for emergency needs; but by compelling the banks to invest in bonds—

"It favors the promoting, financing and placing of bond issues and—

"Does not provide currency responsive to business needs or in time to forestall a panic.

"2. While it helps the bond speculator, it makes it more difficult for the merchant to obtain accommodation.

"3. You deposit cash with your banks. Why should they be offered inducements to tie up that cash in long-time bonds, thereby impairing their ability to return it to you?

"5. This bill inflates the liabilities of the Government, increases the peril of a suspension of specie payments and is a menace to our public finances and public credit in case of war or other emergency.

"5. Do you want to be obliged to pay 8 or 9 per cent. for a loan when money is tight? The Aldrich bill, by taxing so-called emergency currency at the rate of 6 per cent., makes it necessary for your bank to charge you a higher rate for loans in order to make a profit.

"Why shouldn't this question about the money of the people be settled once and for all, and let us go about our business?

"Would you not prefer a measure like the Fowler bill, which supplies a preventive for the trouble instead of a treatment for it after it has happened, and which—

"1. Will provide an elastic currency responsive to the demands of trade and will prevent bank runs and panics.

"2. Will guarantee all deposits with an insurance fund of invincible strength.

"3. Will set the banks to watch each other through mutual responsibility for losses and thereby prevent bad banking.

"4. Will strengthen the public credit and decrease the liabilities of the Government.

"5. Will put in practice methods of issuing currency secured by the assets of the banks, chiefly commercial paper, and based on gold reserves, which methods have been successful for many years in other countries, and in our own country before the Civil War, and have proven capable of giving a supply of bank-note currency when needed, and of retiring it from

circulation as soon as the need has passed, and

"6. Will tend toward lowering the rate of interest instead of increasing it.

"We will supply our reports on these bills at your request."

WHAT ONE NEGRO DID.

What a South Carolina negro, who cares nothing about factional politics, avoids excursions, attends church, is hard-working and saving, did on a one-horse farm last year is set forth in the *Augusta (Ga.) Chronicle* for the benefit of other negroes. From 26 acres he raised 23 bales of cotton, which yielded him 11½ cents a pound, \$1190.25, and 759 bushels of cottonseed, which yielded him, at 29 cents a bushel, \$220.11. From 13 acres in corn he raised 185 bushels, which, at 80 cents a bushel, yielded him \$148. He also got \$39 for 1300 bushels of fodder and \$55 for 5500 pounds of pea hay, making his total yield \$1652.36. He spent \$211.25 for fertilizer, \$210 for rent of land, \$24 for 19 loads of manure, \$12.70 for cottonseed for planting, \$180 for picking and ginning cotton at \$7.50 a bale, \$6.50 for pulling and gathering fodder, \$9.55 for cutting pea hay, \$27.30 for hoeing 26 acres at \$1.05 an acre, \$111.80 for plowing and cultivation at \$4.30 an acre, and \$5 for two bundles of peas, making the total cost \$798.10 and giving him a net profit of \$854.26.

THE COTTON MOVEMENT.

In his report for March 20 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 202 days of the present season was 9,694,265 bales, a decrease under the same period last year of 2,044,780. The exports were 6,157,529 bales, a decrease of 629,564 bales. The takings were, by Northern spinners, 1,285,485 bales, a decrease of 823,213 bales; by Southern spinners, 1,551,588 bales, a decrease of 79,030 bales.

Tobacco Near Tallahassee.

Editor Manufacturers' Record:

Within the last two years it has been discovered that this county (Leon) is one of the best tobacco-growing sections in the country, and this year there is quite a good deal of local money being invested in tobacco farming, and a small amount of Eastern money is also invested. Our Board of Trade, however, has never taken any steps toward an advertising crusade, and the possibilities of our section, I would judge, are very little known. The entire county is very fertile, has a few small lakes, but is well drained, being in what is known as the hilly section of the State. For the most part the land is farmed by a sorry class of negroes, who grow nothing scarcely but corn and cotton, and they barely get a living after paying rent. With this they are satisfied, consequently there is no development, and the possibilities of the land are barely touched. We need an intelligent class of farmers, and I believe if we advertised as we should we would draw them from other sections. We need badly manufacturing plants in the suburbs, and a cotton mill should pay here if it would anywhere. The city has a reserve that could be donated as a site, and the mill could be exempted from city taxation for a period, as I see is done in other towns. The city owns its electric-light plant, water-works and sewerage system, and there is a gas and fuel company operating here. We have free mail delivery, city and rural. The climate is delightful, being very few bad days in winter, and the gulf breezes make the summer cool and pleasant, the nights being especially cool.

J. E. MINTER.

Tallahassee, Fla.



A \$600,000 OFFICE BUILDING FOR BIRMINGHAM, ALA.

As indicating the tendency towards large construction in the South this illustration is presented. Building to be 16 stories high; steel construction; site, 11,400 square feet; 500 rooms; 10 electric elevators; vacuum cleaning; mahogany and white-marble interior finish; will be joined to Brown-Marx Building, making one structure with 800 rooms; owner, W. H. Woodward of Birmingham; architect, W. C. Weston of Birmingham; contractors, John Griffith & Sons of Chicago.

IRON MARKET IN A RUT.

More or Less Doing in a Limited Way at Birmingham.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., March 23.

The iron market seems to have fallen into a rut, and while there is more or less doing in a limited way, the volume of trade is of no moment. There were no large orders on the market, and no inquiries that indicated a raging thirst for iron. Yet some iron was sold every day during the past week. There was the same deviation as to prices growing out of the feeling that it is better to market what is being made than to pile it up in furnace yards. The orders are not of sufficient magnitude to create activity, and, as a rule, more than one interest is asked to name prices for the same order. There was one inquiry for 750 tons for next month's delivery under negotiation that it was hoped would be landed on the basis of \$12.50 for No. 2 foundry.

But for the business that was ordinarily on the market \$13 was the basis generally named. At this price sales were made varying in tonnage from 100 tons up to

250 and more tons. In some cases this price was shaded and \$12.75 was accepted to clinch the sale. There were also sales of No. 2 soft at this price, but only in moderate amounts. There were also sales of this grade at \$13. There were also sales of No. 4 foundry at \$11.50 for nearby shipment. This price would indicate a market value of \$12.50 for No. 2 foundry. A fair statement of condition of market is that one can buy some iron at basis of \$12.50 for No. 2 foundry. But this price is not uniform, and there are some who will not accept that value, and, in fact, nothing below a \$13 basis for No. 2 foundry. Having practically no stocks, this class is not seeking the buyers.

There were reports of sales of No. 4 foundry at \$11 and less. But efforts to confirm this were unsuccessful. The Sloss-Sheffield Company is making here about 5000 tons per week. It reports that its sales about cover the production, and the accumulation is nominal. Your correspondent knows of other interests who could not fill a moderate order for mixed grades from their yards, simply because they are not in stock. These firms are not

sellers. And they are making no strenuous efforts to increase stocks by increasing output. There is some accumulation of ore at some of the mines preparatory to the day when changed conditions will warrant a draft on accumulated supplies. No matter what may be the matured opinion of one upon market conditions, he can draw upon the course of the market for confirmation of their correctness. In short, the market is one where one hesitates to venture a well-considered opinion. It is anybody's and everybody's market, so far as opinion is concerned.

In scrap iron the market is yet quite dull. Transactions are few and small, and are of no significance. That market is waiting for the pig market to show some activity, and there is some piling up of supplies. Weller & Co. report the market as follows, to wit:

Old iron rails, \$17 to \$18.

Old iron axles, \$18 to \$19.

Old steel axles, \$15 to \$15.50.

Old car wheels, \$16 to \$16.50.

No. 1 railroad wrought, \$15.50 to \$16.

No. 2 railroad wrought, \$12.50 to \$13.

No. 1 country wrought, \$11 to \$11.50.

No. 2 country wrought, \$11 to \$11.50.

Wrought-iron pipes and flues, \$10 to \$10.50.

Railroad malleable, \$11 to \$11.50.

No. 1 steel, \$11 to \$11.50.

Machine castings, \$11.25.

Stove plate, \$10.

Cast borings, \$6.50 to \$7.

There is very little to say concerning coal and coke. Reports vary. Those coal mines favorably situated reported some improvement in their sales department, while those who are not so fortunate report an unsatisfactory situation. The Empire Coal Co. is installing a new compressor and some powerful hoisting machinery at its mine, by which its capacity will be increased from 700 to 1000 tons daily output. The demand for the quality of coal mined by this company is such that a ready market absorbs their entire output as fast as ready for shipment. Some of the dealers in mining machinery and supplies report that they are shipping to the mines again, and that improvements that were suspended are being taken up and considered again with prospects of being pushed to completion.

For some time past your correspondent has known that negotiations concerning the erection of another skyscraper were pending. They were concluded last week, and it was decided to erect a 16-story skyscraper adjoining the Brown-Marx Building on the corner of First avenue and 20th street. The building operations will be so directed that when completed the new building will be part and parcel of the older building. There will be in the entire structure 800 rooms, and the building contractor says it will be the largest steel-frame structure in the South. Every energy will be directed toward having it completed in one year. This undertaking at this time is fresh evidence of a returning sense of confidence, and it will give courage and backbone to those who always need an example before them to put a move on themselves. The influence of this new building on conditions here will be very great. The city and the district that do things will attract the attention of the country and hold it as long as they are able to lead in doing things. As the plans mature for the development of this city and district there will be no lack of further opportunity for the safe investment of a very large capital. Birmingham has paid very large dividends in the past to those who have held fast to their faith in her future, and these dividends will continue for another generation without exhausting ability to continue them.

It is noted that the Central Foundry

Co. at Bessemer has announced its reopening after having been closed down for some months. This is but additional testimony to the fact that there is something doing in this district. Gradually the list of industries in operation is being added to, and it will not be long before normal conditions will again prevail. Those who have weathered the storm in best shape will lead the others in again seeking port. The whir of machinery in one shop will act as a stimulant to another, and it will be like an epidemic of the measles when the majority are inoculated with the fever. The breaking out will follow and the disease will run its course.

It is estimated that the latest 16-story building will cost the tidy sum of \$600,000. That amount spent here now will give a great impetus to other enterprises that are contemplated. While there are plenty of rumors on which to base stories concerning facts, it can safely be said that nothing yet can be said with certainty concerning their erection. In at least one case the plans are drawn and the details are being worked out, but the enterprise has not yet been financed. J. M. K.

In Kentucky Oil Fields.

[Special Cor. Manufacturers' Record.]

Barbourville, Ky., March 23.

Operations for petroleum in the various Kentucky fields are gradually resuming, after a period of inactivity during the winter months. Some new capital has entered the field lately, and new developments are being started in a number of the smaller fields of the State. Lately some good strikes have been made outside the established fields, and the chances are excellent for the opening of new pools for summer and fall operations.

A new company is the Elk Oil & Gas Co. of Ashland, Ky., capitalized at \$500,000. Six thousand acres have been leased in Morgan county, a new proposition, and arrangements are being made this week for the drilling of a number of new wells. Several tests have been conducted in that county in the past, but neither oil nor gas has been developed in commercial quantities. Extensive tests will be made for both these resources of nature, and if they are developed on any material scale a great deal of new capital will be expended in drilling in a new direction.

In the established oil fields of Kentucky, including those of Wayne, Wolfe, Bath, Rowan, Whitley, Knox, Clinton and Estill, there are now close to 40 rigs drilling. The number has been considerably augmented this month, following a period of good weather, and the number will witness a still further increase as the summer season approaches. Indiana and Illinois operators have been taking up leases in new directions lately, and will prospect in several Western Kentucky counties outside the established districts. The producing branch of the Standard Oil Co. has also been leasing in that direction, and the productive belt may be greatly extended by the new developments.

The past few days have brought several completions of good capacity in the older fields of the State, especially in Wayne county, where a 50-barrel strike is stimulating interest. The first three weeks of the month were marked by 10 strikes in that district, which is the center of development work in Kentucky.

Kentucky petroleum prices have been firm for several months past. The Standard Oil Co. pays \$1 and 75 cents for the two grades, while the Indian Refining Co., an independent concern, pays \$1.03 for the better grade. W. S. HUDSON.

The Hardware Dealers' Association of the Carolinas will hold its annual convention at Wrightsville June 8-10.

STEEL CORPORATION'S VAST OPERATIONS.

[Written for the Manufacturers' Record.]

The vastness of the business interests of this country probably finds no better illustration than in the fact that the gross receipts of the United States Steel Corporation exceed the gross revenues of any country in the world except Russia. And yet the Steel Corporation represents in all of its ramifications only about one-half of the iron and steel trade of the country. A comparison of its receipts and of the gross revenues of the leading nations of the world presents the following:

United States Steel Corporation..	\$757,014,767
United States.....	694,000,000
Germany.....	495,000,000
France.....	695,000,000
United Kingdom.....	737,000,000
Russia.....	1,126,000,000

The magnitude of the operations of this company becomes of special interest to the South by virtue of its purchase a few months ago of the Tennessee Coal, Iron & Railroad Co. of Birmingham, and the fact that this company is now in Alabama becomes of very far-reaching importance to the metallurgical world. Alabama secures the assurance of practically unlimited capital, and a call on the world's highest technical skill for the fullest development of its great iron and steel-making resources, and the development of these resources on a scale which has never before been possible, makes the situation one of very great importance not only to the iron and steel interests of this country, but of the whole world. With its geographical location with reference to the South and Southwest, to the Gulf, and thus to Central and South America, and eventually through the Panama canal to the Pacific, Alabama holds a strategic position of far-reaching importance.

Guided by the broad ability which has thus far directed the management of the Steel Corporation, it may be accepted without question that its interests in Alabama will be developed on a scale commensurate with the natural resources of that richly-endowed State, and thus the whole South and the Steel Corporation alike are to be congratulated upon the fact that its fortunes are now linked with Southern development.

In its annual report for the year 1907 the United States Steel Corporation presents figures showing the impressive magnitude of its extensive operations. The document begins with the income account, which gives the total earnings of all properties, after deducting all expenses, as \$160,964,673. The deductions include operating expenses, ordinary repairs and maintenance (the latter approximately \$35,000,000), employes' bonus and pension funds, interest on bonds and the fixed charges of subsidiary companies. From the total earnings, which, as displayed above, are not the gross earnings or total revenue of the corporation, is deducted the sum of \$27,719,744, leaving as the net earnings \$133,244,929, the deduction covering appropriations for sinking funds on bonds of subsidiary companies, depreciation and extinguishment funds, extraordinary replacement funds and special replacement and improvement funds. Out of the net earnings were paid interest on the Steel Corporation's own bonds, sinking fund instalments and dividends on the preferred and common stocks, leaving as the surplus net income for the year \$69,179,836. Out of this latter sum were paid \$35,500,000 on account of expenditures for additional property, new plants and construction, and for discharge of capital obligations, and \$18,500,000 specifically for the construction account of the Gary (Ind.) plant, thus leaving the balance of surplus for the year at \$15,170,836.

Included in the preceding figures are the disbursement of over \$35,000,000 in dividends and nearly \$23,000,000 in bond interest, the latter being for the Steel Corporation's bonds alone, that is not considering bond interest of subsidiary companies. Thus, in distributing dividends and interest to its many holders of stock and bonds, the company disbursed last year in round figures nearly \$60,000,000, besides adding over \$15,000,000 to its surplus, which now amounts to a total of \$94,736,490. When the Corporation was formed the surplus or working capital provided in the organization was \$25,000,000; thus it has increased to nearly four times that sum. But, including the surplus of subsidiary companies, there is now a total undivided surplus of \$122,645,243, the gain for these companies last year having been \$9,744,692.

But to fully enlighten the reader concerning the vastness of the Steel Corporation's business it is necessary to quote from the general profit and loss account, which gives the gross receipts (that is, the gross sales and earnings) for 1907 as \$757,014,767, or more than three-quarters of a billion dollars. This is a sum greater than the annual gross revenues of either the United States (\$694,000,000), Germany (\$495,000,000), France (\$695,000,000) or Great Britain—the United Kingdom—(\$737,000,000), the latest figures obtainable being used for this comparison. Among the various great governments, Russia's is the only one whose revenues (\$1,126,000,000) exceed those of the Steel Corporation. These gross revenues of the great company increased as compared with 1906, \$60,257,876. Concerning this great total (\$757,014,767) the report says: "This amount represents the aggregate gross value of the commercial transactions conducted by the respective companies (in the Corporation), and includes sales made between these subsidiary companies and the gross receipts of the transportation lines (those owned or operated by the Corporation) for services rendered both to subsidiary companies and to the public. The earnings for the year resulting from the above gross business represent the combined profits accruing to the several corporate interests on the respective sales and services rendered, each of which is in itself a complete commercial transaction." But these illuminating sentences only make clearer the extent and intricacy of the Steel Corporation's vast interests.

Turning to the expenditures as given in the general profit and loss account, the combined manufacturing and producing cost and operating expenses are found to be \$504,166,777, which includes the \$35,000,000 for ordinary maintenance and repairs. Of course, a large percentage of these hundreds of millions disbursed in conducting the business went for salaries and wages to officers and employees.

The company mined last year 22,403,801 tons of iron ore, an increase of nearly 2,000,000 tons over 1906, and of the total, 16,458,273 tons came from the Mesaba range. It manufactured 12,373,938 tons of coke and mined 1,841,259 tons of coal, not including that used in coke manufacture. It quarried nearly 3,000,000 tons of limestone. The blast-furnace products (principally pig-iron) total 10,819,968 tons; the steel ingots totaled 13,009,548 tons, of which 5,543,088 were open-hearth and the rest Bessemer. The rolled and other finished products amounted to 10,376,742 tons.

The company employed more than 210,000 persons in 1907 and paid them salaries and wages amounting to nearly \$161,000,

000. Both of these figures show increases over 1906.

One of the most impressive facts about the magnitude of the Corporation and its resources is the construction of the new plant at Gary, Ind.; the terminal railroad work and facilities for it, and the building of the city of Gary. Up to December 31 last there had been expended there, including the cost of about 9000 acres of land, over \$24,000,000, which was provided, says the report, "entirely from surplus net profits of the Corporation." At that date there was reserved in the special fund set aside and available for this construction work a balance of \$26,051,242, making a total of over \$50,000,000 appropriated for Gary. It is believed that about \$18,000,000 will be expended this year. Gary is 25 miles from the business center of Chicago, and is located at the southern end of Lake Michigan. There will be eight blast furnaces, each of a capacity of 450 tons daily, or a total of 3600 tons per day; 56 open-hearth furnaces, each of 60 tons per day capacity, or a total of 3300 tons daily, and estimated to produce 225,000 tons of ingots per month; a rail mill with an estimated capacity of 100,000 tons per month; a billet mill of 100,000 tons capacity per month, besides plate mills, merchant mills with a capacity of 50,000 tons per month, pig-casting plant, powerhouses, vessel slips, facilities for unloading and storing ore, complete equipment of mechanical shops, office buildings, etc. The plant will be so built that the number of blast furnaces may be increased to 16, giving a total capacity of 7200 tons per day, and the other furnaces and mills can be enlarged accordingly. Construction of this immense plant was begun 18 months ago, and great progress has already been made. The city of Gary has been plotted to the extent of one subdivision, which includes about 4000 lots. This will include more than 25 miles of paved and macadamized streets. Several miles of streets have already been paved, and 37,000 linear feet of sidewalks have been laid. A sewerage system has been installed, a gas plant is in operation and additional gas and water pipes are being laid. An electric-light plant is also working, and about 500 dwellings have been erected, many of which are already occupied. Approximately 240 lots have been sold, largely in the business districts, and about 40 business blocks have been constructed, most of them being now occupied by stores, besides two banks and offices. A hotel, two lodging-houses and a schoolhouse have been built.

The Corporation has also purchased nearly 1600 acres of land about 10 miles from Duluth, Minn., where it is proposed to build an iron and steel plant of moderate size. This is on the St. Louis river, which is navigable for large steamers.

The summary of manufacturing plants owned by subsidiary companies of the Steel Corporation shows a grand total of 145 works, the principal companies being Carnegie Steel Co., 24 works; American Steel & Wire Co., 28 works; American Sheet & Tinplate Co., 36 works; American Bridge Co., 20 works; National and other tube companies 19 works, besides the Illinois Steel Co., Lorain Steel Co., Union Steel Co., Clairton Steel Co., Tennessee Coal, Iron & Railroad Co. and the Universal Portland Cement Co. There is a total of 116 blast furnaces, 194 open-hearth furnaces, 37 Bessemer converters, 55 billet and other mills, 8 rail mills, 17 plate mills, 100 puddling furnaces, 36 skelp mills, 65 merchant mills, 446 sheet mills, black plate and tinplate mills, 63 pipe furnaces, besides many structural, rod, wire and other mills. The iron-ore mines of the Corporation are 72 in number. Its railroads comprise 5 principal companies,

and in addition to these there are numerous smaller lines and branches, so that the total main line is 863 miles. Besides this, there are 492 miles of branches and spurs, and in addition to this 410 miles operated under trackage rights. There are 298 miles of second track and 659 miles of sidings. To operate these roads there are 908 steam locomotives and nearly 43,000 cars, of which only about 100 are passenger train cars. The marine equipment consists of 76 steamers and 29 barges.

The total assets of the Corporation are \$1,758,113,013, of which \$1,445,837,450 represents its real property.

TRAFFIC BY WATER.

Recent Developments in That Method of Transportation.

The Bureau of the Census has just issued a bulletin on transportation by water, prepared under the direction of William M. Steuart, chief statistician for manufacturers. The bulletin contains a summary of the main features of a census of transportation by water which covered the year ending December 31, 1906, further details of which are reserved for separate reports on the shipping on the Atlantic coast and Gulf of Mexico, the Pacific coast, the Great Lakes and St. Lawrence river, the Mississippi river and its tributaries, and all other inland water, respectively.

The bulletin includes the statistics for all American vessels or craft of five tons net register or over operated on the coasts and inland waters of the United States, Porto Rico and the Hawaiian Islands, or between the ports of these and other countries. All craft are included except those owned by the Federal Government, those engaged in fishing, and stationary wharf boats and houseboats used largely for residential purpose.

The statistics cover 37,321 active craft with an aggregate gross tonnage of 12,893,429, and 1762 idle craft with an aggregate gross tonnage of 179,326. In 1889 there were reported 30,485 active craft with an aggregate gross tonnage of 8,359,135, and 1490 idle craft with an aggregate gross tonnage of 233,639. Of the active craft, the value increased from over \$200,000,000 in 1889 to over \$500,000,000 in 1906. In the same period the gross income increased from about \$162,000,000 to about \$295,000,000, or 82 per cent.; the number of employees from about 114,000 to about 141,000, or 23.8 per cent., and the wages paid from about \$41,000,000 to about \$72,000,000, or 72.7 per cent.

By far the largest part of the American shipping, 20,032 vessels with an aggregate tonnage of more than 4,800,000 tons, operates on the Atlantic coast and Gulf of Mexico. The next greatest number, 9622 vessels with a tonnage of over 4,400,000, is shown for the Mississippi river and its tributaries. But so many of these vessels reported from the Mississippi river are coal barges and scows that, in spite of the large number and great tonnage, the value is only about \$23,000,000 and the income only about \$17,000,000. The smaller number of vessels on the Great Lakes, 2900, represented a value of over \$130,000,000 and derived an income of over \$65,000,000. Shipping on the Pacific coast showed a great proportionate increase, and did business valued at about \$49,000,000.

The substantial increase in American shipping is due entirely to the increase in steam vessels and in unrigged craft, as the number of sailing vessels decreased over 10 per cent., while their tonnage increased but 1.7 per cent.

Between 1889 and 1906 the number of steam vessels increased from 5603 to 9927, or 77.2 per cent.; their tonnage from 1,710,073 to 4,059,521, or 137.4 per cent.,

and their value from \$131,567,427 to \$386,772,727, or 194 per cent. This increase, moreover, was general on all waters except the Mississippi river and its tributaries, where the tonnage actually decreased. The greatest absolute increase, except in gross tonnage, is shown for the steam vessels operating on the Atlantic coast and Gulf of Mexico. In gross tonnage the largest increase—one of 1,319,973 tons—was reported from the Great Lakes, and resulted from the recent construction of large vessels to carry ore and grain.

If the tugs and other towing vessels are regarded as part of the freight equipment, 67.4 per cent. of the steam vessels were engaged as freight and passenger boats. Yachts, although forming a considerable proportion of the number of steam vessels, are of comparatively little commercial importance. Ferryboats, which numbered 536, formed 5.4 per cent. of all steam vessels.

During the year 1906, according to the census, ferryboats carried 330,737,639 passengers, over 63 per cent. of whom were carried by the ferries in and around New York harbor. Of the total number, 309,792,584 passengers rode on regular ferryboats and 20,945,055 on municipal ferryboats. While the income of ferryboats is derived largely from carrying these passengers, in some cases, particularly on the Mississippi river and its tributaries, the ferrying of wagons, teams and cattle and the carriage of freight are in excess of the passenger business.

On railroad ferries carrying passenger coaches it is estimated 37,455,512 additional persons were carried. These car ferries form connecting links in railway systems and transport for short distances whole trains of cars without disturbing the passengers or the freight.

In 1889 nearly 130,000,000 net tons of freight were carried by vessels of the United States; in 1906 over 265,000,000 net tons were so carried, an increase of over 100 per cent. The proportionate increases for freight carried on the Atlantic coast and Gulf of Mexico and on the Great Lakes were even considerably larger.

On the basis of tonnage moved, coal is the most important item of freight in the water commerce of the United States. The movement, amounting to over 49,000,000 tons, is composed chiefly of shipments of hard coal from railway terminals on the New Jersey coast for consumption in Greater New York, and of soft coal from Atlantic ports farther south. Next to coal the greatest tonnage is for iron ore, the transportation of which is concentrated on the Great Lakes. In 1889 shipments of iron ore amounted to about 8,000,000 tons; in 1906, to over 41,000,000 tons, an increase of over 400 per cent. In the Great Lakes region large quantities of grain—3,689,329 tons—were transported by water.

Considerable decreases are shown in the shipments of lumber and of ice. The decrease in the former is due to the exhaustion of the forests near water courses; that in the latter, to the great increase in the use of manufactured ice.

One of the striking facts brought out by the report is the rapid increase in the use of iron and steel as materials for the construction of vessels. The first census at which the construction of iron and steel and of wooden vessels was given separately was that of 1880. In that year 26.5 per cent. only of the total value of new construction was of iron and steel; in 1890 the proportion was 47.2 per cent.; in 1900, 71.2 per cent., and in 1905, 81.7 per cent. Or, to state this increase in terms of tonnage instead of value, in 1900 the gross tonnage reported for vessels constructed of iron and steel exceeded the

gross tonnage reported in 1889 by 2,751,505 tons, an increase of more than 520 per cent. More than half of this increase occurred on the Great Lakes, where the tonnage of wooden vessels actually decreased.

A further separation of the statistics for iron and steel vessels shows the great importance of tonnage for steel as compared with that for iron, wood or composite materials. In 1906 no less than 62.4 per cent. of the tonnage of the steam vessels was reported for steel vessels.

Because of their comparatively small size, wooden vessels still predominate among the sailing vessels and the unrigged craft.

In 1880 the amount of freight passing through the canals and canalized rivers of the United States was, in round numbers, 21,000,000 tons; in 1889, 49,000,000 tons, and in 1906, 122,000,000 tons, an increase of over 480 per cent. between 1880 and 1906. This increase has resulted wholly from the increased use of Government canals, which are ship canals and canalized rivers; the use of canals under State and corporation control, largely of the smaller type, has steadily decreased. In 1880 only 24.1 per cent. of the canal traffic was on ship canals; in 1889 the percentage was 79.0, and in 1906, 96.5.

In striking contrast to this great increase in the canal freight movements is the comparatively small increase in the length of the canals and canalized rivers. The total mileage of canals constructed and of rivers improved by canalization between 1880 and 1906 was 1296.53 miles. In the same period, however, 887.71 miles were abandoned, so that the increase in the mileage in use was only 408.82 miles. The whole increase comes practically in the canalized rivers; in canals operated under State or corporation ownership the old canals abandoned exceed the new constructed by somewhat over 700 miles.

The busiest canal in the world is the St. Marys Falls canal, connecting Lake Superior with Lake Huron. In 1906 the net tonnage of vessels passing through this canal was three times as great as that through the Suez canal and more than seven times as great as that through the Kaiser Wilhelm, or Kiel, canal. This is the more noteworthy since the St. Marys Falls canal, on account of the severity of the cold, is open to traffic for only about eight months in the year, while the others are open twelve. The increased use of the St. Marys Falls canal has been tremendous. In 1880 only 1,244,279 tons went through; in 1889, 7,516,022 tons, and in 1906, 41,276,862 tons, an amount 3217.3 per cent. greater than in 1880 and 449.2 per cent. greater than in 1889.

Central Georgia Power Co.

The MANUFACTURERS' RECORD of February 6 presented a detailed story (accompanied by a map showing the location of power plants and transmission lines) of the plans of the Central Georgia Power Co. of Macon, Ga., for building water-power-electric plants in Georgia. Authoritative advices have now been received that the company has completed arrangements for financing its proposition. Messrs. A. B. Leach & Co., 149 Broadway, New York, having agreed to underwrite the company's securities. There will be issued bonds for \$16,000,000 and stock for \$20,000,000 on the Oconee, Ocmulgee and Flint river properties, the development of which will include a comprehensive transmission system to supply electricity for manufacturing and lighting purposes at Macon, Griffin, Barnesville, Forsyth, Jackson, Flovilla, Fort Valley, Montezuma, Thomaston, Milledgeville, Sparta, Greensboro and other cities. Charles F. Howe, chief engineer of the Central Georgia

Power Co., offices in Grand Building, Macon, telegraphs the MANUFACTURERS' RECORD, in addition to the above confirmation of the financing, that the first development will be undertaken on the Ocmulgee river, near Jackson, and 18,000 horse-power is available. Ultimately the company will develop from 125,000 to 150,000 horse-power. The first development has been planned by Messrs. Lockwood, Greene & Co. of Boston, Mass., and Greenville, S. C., and provides for high head power without canal, making a storage reservoir of 3500 acres; the dam to be constructed of concrete and masonry and be 1400 feet long. The transmission wires will be suspended from steel towers and the electricity will be transmitted at 60,000 volts. This first development, complete with all construction work and machinery, is estimated to cost \$1,850,000. W. J. Massee is president of the Central Georgia Power Co., J. C. Walker is vice-president and J. T. Moore is treasurer; offices in the Grand Building, Macon, Ga.

A Fifty-Mile Oil-Pipe Line.

That prominent capitalists continue to be interested in the further development of the oil fields of Texas was indicated during the week by the announcement that Messrs. Charles G. Dawes, president of the Central Trust Co. of Illinois, 152 Monroe street, Chicago, Ill.; John A. Markley, also of Chicago, and associates have awarded contract for the piping for their proposed oil-pipe line. This line will extend from Texarkana, Texas, to Shreveport, La. The contract was given to the South Chester Tube Co. of Chester, Pa., and specifies 50 miles of eight-inch pipe, to be delivered within four months. It is reported the contract amounts to \$115,540, exclusive of transportation, fittings and laying. With the signing of this order it is understood that Messrs. Dawes and Markley begin to make their arrangements for important work involved in their plans for developing and marketing Texas oil.

Auto Lines in Texas.

An automobile line is reported to have been started at Marfa, Texas, which will penetrate 400 miles of rich territory. It now runs from Marfa to Pecos City, Texas, via Shafter, Alpine, Valentine, Fort Davis and Terlingua. It is also to operate to Presidio, Texas, at some time yet to be decided. Another automobile line is reported started between Woodward, Gardendale and Bookwalter, Texas, 30 miles.

The Maryland Steel Co., Sparrows Point, Md., has been given a contract to furnish 2200 tons of 70-pound steel rails to the Isthmian Canal Commission for \$68,200, delivery at Colon. This order was secured through R. C. Hoffman & Co., sales agents of the company, Baltimore.

The Chamber of Commerce of Lynchburg, S. C., has elected Messrs. T. N. Griffin, president; W. J. McLeod, vice-president; E. E. Timmons, secretary and treasurer; E. E. Timmons, J. A. Hickson, S. W. Frierson, J. A. Thomas, J. T. McNeill, D. P. Dennis and J. W. Phillips, directors.

The Maryland Steel Co. of Sparrows Point, Md., has put in operation its steel-rail department (which had ceased operations at the first of the year), giving employment to about 800 men. It has also blown in another iron furnace, making two now in operation.

The Chamber of Commerce of Chattanooga, Tenn., has issued invitations to a banquet on April 1 under its auspices in celebration of the opening of the Hotel Patten.

CURRENT EVENTS AS VIEWED BY OTHERS

NECROPOLIS OF INITIATIVE.

[*New York Sun.*]

Consider what Government regulation has done for the railroad elsewhere. Forty years ago the measure of our railroad efficiency was pretty nearly the same as that of England and other countries. During that 40 years England and other countries have remained in *status quo*; they have made not one atom of substantial progress, while with us there has been incessant improvement. The rate per ton-mile has never ceased to decrease, nor, except at understandable intervals, the gross and net to increase. In every other particular relating to efficiency our progress has been uninterrupted and has been due solely to the working of the irrepressible national spirit left to its free exercise of its natural attributes.

All the other railroads in the world are where they were 40 years ago, except that they are worse off in essentials, having had ever-growing demands made upon them which they were utterly unable to meet, and which meet they never can. That is what Government regulation has done for them, Government regulation proper enough in the case of a body politic which has never learned freedom, does not enjoy freedom and does not deserve freedom, but which in our country has been heretofore deemed intolerable.

Wherefore we hold that it is deplorable that the conditions which have conducted in America to such results should suddenly cease in compliance with popular clamor and a temporary suspension of public reason. We are sorry, but we bow to the inevitable. The notions of the social democracy are to prevail over the ideas of a free American democracy, and we presume we shall endure the blessing of a bureaucracy as well as anybody else. But all the same it is a pity. Twenty years more of liberty would have made such a difference, a difference from the point of view of science, of pride and of national self-respect.

It is nearly two years since we invited our railroads to acquiesce with a becoming grace in their approaching bankruptcy, and we honor them for the elegance of their compliance. We now ask the pleasure of their company to a protracted entertainment in the Necropolis of scientific incentive and individual initiative.

DESTRUCTIVE CRITICS.

[*Cumberland Presbyterian.*]

The MANUFACTURERS' RECORD puts into a single sentence a sentiment which we sincerely endorse when it gives an editorial the title "Up with the Builders; Down with the Muck-Rakers." Continuing, this journal says: "The muck-rakers—and what a horde of them we have! Some honest but misguided, many dishonest in their work, and all swept off their feet by the wild applause of the mob spirit which they have helped to develop—will have much to answer for both in this world and the next." Now, of course, if truth is to prevail, error must be exposed; if right is to be established, wrong must be uncovered; but the kind of critics, whether in things religious or civil, who do nothing but destroy faith and shake confidence are a harmful lot. We are not disturbed about the critics of the constructive kind, the kind who are ever ready to discard a rotten timber that they may use one which is sound, but who go right on building; but the kind of critics who live just to tear down the things upon which are founded the hope and

peace, the prosperity and salvation of nations or of individuals—well, "down with the muck-rakers."

RAILWAY MILEAGE.

[*Wall Street Journal.*]

There are only three-quarters of a mile of railroad to every 10 square miles of territory in the United States, according to the latest returns of the Statistics of Railways. This seems to be a small average, but it is the highest that the country has ever known. And unless there is more zest put into the building of railroads in the near future than can now be commanded, the average may stay about where it is for some time to come. In the present plight of railway finance neither the State authorities, the railroads themselves nor the banking interests which back such projects ordinarily are disposed to encourage any new undertakings which would lock up capital pending the period when new mileage might support itself.

Yet the country cannot be regarded as permanently supplied with railway mileage. The problem of the future will probably be one of distribution according to progress rather than one of preempting territory through railway competition. How matters stand now will appear from the following table, in which length of mileage is compared with area and population in representative States:

States.	Railroad miles per 10 square miles.	Railroad miles per 1,000 population.
Iowa.....	1.78	4.03
Illinois.....	2.16	2.28
Pennsylvania.....	2.50	1.62
North Carolina.....	.90	2.11
Georgia.....	1.13	2.72
Texas.....	.47	2.71
United States.....	.75	2.67

The great agricultural States of the West rank highest in length of line. For instance, Illinois, the first corn State, has 2.16 miles of line for every 10 square miles of territory. Pennsylvania, which is an agricultural and a manufacturing State in one, has 2.50 miles. North Carolina, on the other hand, has only .90 of a mile of line; Georgia has 1.13 miles, while Texas ranks lowest among these representative States with .47 of a mile to every 10 miles of area.

The factors that make railway mileage necessary are easily accessible territory of a productive character and population. Where such natural resources are found, as in the prairie States of Iowa and Illinois, railway mileage naturally develops until it brings the commodities produced within fair hauling distance of the railroads. This is the decentralizing tendency in the distribution of mileage. Its main field in the future is in the South and the Southwest. Elsewhere the concentration of industry and population gives rise to the opposite tendency. Both of these are suspended only temporarily.

There would thus seem to be for the future twofold progress in railway mileage. As productive territory in agriculture, lumbering and manufacturing is extended new mileage will have to be distributed so as to bring such areas into connection with existing systems. The second and lesser increment of mileage will be part of the process of concentration, in which population rather than products forces the increment in mileage upon the investment world.

THE FLOOD MENACE.

[*Pittsburg Chronicle-Telegraph.*]

The fourth flood warning of the season came yesterday with alarming suddenness. However, the flood menace has been so persistent that the dwellers in the low-

lying districts were not taken unawares and preparations were made in due time to meet it with such methods of defense as are available. A rise of over 30 feet was anticipated by the weather bureau, but happily the limit was reached at 27.3 feet, a stage at which the damage wrought is comparatively small.

The present record of four serious freshets within a period of less than three months is without precedent, and it bears out strikingly the claim advanced by the engineers acting for the flood commission of the Chamber of Commerce that the danger from floods is steadily on the increase. In former years the filling up of the river channel with refuse from the mills contributed largely to this condition. Nowadays the chief producing cause is said to be the destruction of the forests at the headwaters of our rivers, and plans of reforestation are recommended accordingly.

As it is, there is an entire lack of defensive provisions except such devices as are employed by individuals. Evidently, then, there is room and necessity for active endeavor in this field, and the beginning of work by the flood commission is a correspondingly important move.

AGAINST ANARCHY.

[*Norfolk Landmark.*]

In the Danville district several "warnings" have been received by tobacco-growers from the night riders, and a barn has recently been burned under circumstances indicating the activity of the same marauders who have overawed a district of Kentucky and committed serious depredations in Tennessee.

The night riders had better keep out of Virginia. We do not submit to that sort of dictation in the Old Dominion. It is the history of our State that personal independence is not to be lightly disturbed; and it is also the history of our State that its Governors are quick to resent lawlessness. There has never been a Governor less likely to submit to anarchy than Governor Swanson. He has the spirit to punish the night-riding contingent and a strong military arm with which to enforce the spirit.

CHOKING DEVELOPMENT.

[*Nashville American.*]

Mr. W. W. Wood of Jamestown, Tenn., president of the Fentress County Railroad Co., which has planned to build a railroad for the development of mineral and timber lands which lies, rich and idle, in that region of undeveloped wealth, writes as follows to the Baltimore MANUFACTURERS' RECORD:

"We are not doing anything at present in railroad business. We are waiting to see what the Government and the States do in regard to railroads and corporations. We have a rich country here in coal and timber. At present I do not see how we can go ahead and build our railroad, as a charter member holds coal land which, if we build the railroad, we would expect to develop. We are willing to sell our coal land, our timber and our railroad property to some other company and let it build."

The MANUFACTURERS' RECORD offers this comment: "This looks like the working out of a provision of the Hepburn law as a deterrent upon the development of natural resources in the creation of wealth. Here, it seems, is a suspension of plans for building a railroad that would add to the country's store of lumber and coal because one of the promoters of the road is interested in coal lands. The case

is not unlike the more acute one of a railroad company in the Northwest prohibited from hauling coal from mines in which it is interested, and prohibited at a time when nobody is able to buy coal mines and thus to relieve the railroad of its embarrassment. Government regulation of railroads is beautiful in theory, perhaps, but it is death to development."

Where a great railroad owns large coal mines, as in Pennsylvania, the opportunity for controlling the coal trade or discrimination can be such as to make such ownership objectionable. But in the case mentioned in Tennessee the law chokes development. There are rich areas of timber and coal waiting railroad facilities for their development, and under present conditions they will wait a long time. The South's development cannot be promoted under the present trend of legislation.

OUTLOOK FOR LIFE SAVERS.

[*Boston Transcript.*]

Congress is manifesting a gratifying disposition to do at least a measure of justice to the men of the life-saving service. The House has passed the bill increasing the pay of superintendents, station keepers and senior or "No. 1" surfmen. The increase is moderate in each instance. There is no retired pay or pension for the service, notwithstanding the fact that it is an extra hazardous calling, and in time of war is an auxiliary in naval defence. The widows and children of those who perish in their calling now receive two years' pay of the deceased as a gratuity. Hereafter the benefit of this provision is extended to dependent mothers. The House has also directed that a ration or its commutation in money value, 30 cents, shall be issued to the crews who have heretofore been compelled to pay for their food out of their exceedingly moderate wages.

In the 37 years of its existence this service has cost the Government \$35,200,699, an average per annum of \$951,613. During that time the value of the property imperiled, to whose assistance the life savers have gone, aggregated \$251,516,284. The property saved, vessels and cargoes, was valued at \$190,457,597. The number of lives imperiled was 121,627. Exactly how many lives have been saved by the service it is impossible to say, but they may fairly be reckoned by the scores of thousands. Congress cannot plead economy in excuse for its long neglect of these most deserving men, for the cost of the life-saving service for a decade does not more than equal the expenditure involved in building and arming one modern battleship. It is to be hoped that the Senate will concur in the action of the House, and thus draw to the service experienced yet active men in the prime of life, the element which for some years has found its wages far from attractive.

PROFIT IN CELERY.

[*Florida Times-Union*]

W. F. Holmes, a Grand Rapids man, came to Daytona last October, purchased a five-acre tract of the Jasper Brown property on Second avenue, west of the railroad, and with the help of E. J. Loehr, an experienced celery grower of Michigan, set to work to demonstrate what could be done in celery growing. A two-inch pipe artesian well, with a flow of 40 gallons per minute, was put down. From this a main was extended north and south and tapped with three-inch tiling run east and west for sub-irrigation. This preparation, as Mr. Loehr courteously explained to a

Times-Union correspondent, not only meant sub-irrigation, but drainage as well, and that on land on which he had had to wade after a rain before tiling, after the tiling he was able to set plants on as soon as the rain was over.

Four and one-half acres of the Holmes farm are set solid to celery, from the boarding stage down to baby plants set last week. And a more attractive picture to the thrifty, profit-seeking horticulturist would be hard to find. The first plants were set November 21, and are now about ready for shipment. It is beautiful in color and juicy and delicious of flavor. On January 17 there were as many as 3000 plants set, and now the number runs something over 300,000. The following facts and figures were submitted by Mr. Holmes for publication in the interest of those who contemplate going into the celery business in the vicinity of Daytona:

Cost of five acres of farm land at \$100 per acre.....	500
Clearing, planting and fencing at \$60 per acre.....	300
Preparing with three-inch tiling.....	550
Irrigating well.....	75
Boards for bleaching celery.....	350
Cost of growing and marketing crop.....	1500
Total.....	\$3225

Proceeds to the acre will be from 800 to 1200 crates. Put it at 1000, at \$2.50 per crate, nets \$12,500 on five acres. Investment, \$3225; profit, \$9275.

Mr. Holmes says he has no land to sell, but he is more than satisfied with his investment. He says ground should be prepared through the summer for planting seed in September. It is his prophecy that the rich hammock lands of Volusia county cannot be bought one year from now for \$100 per acre.

DECIMATION OF MOBILE'S SCHOOLS.

[Mobile Register.]

The axe has fallen, and the Mobile schools feel its cutting edge. By reason of the legislative act taking away the support hitherto derived from the fund paid in for liquor licenses, the schools are deprived of some \$80,000 annually, and the school board has been forced to rearrange its budget for 1908-1909 so as to bring the prospective expenses within the total of the prospective income.

The office of assistant superintendent, whose value is admitted by all, and which has been so ably filled by Mr. N. R. Baker, is abolished.

The manual training school is abolished. The office of supervising principals is abolished.

And the kindergartens are eliminated from the public-school system.

A reduction of salaries amounting to 20 per centum is decreed, applicable to the entire teaching force.

The services of the license collection officer are dispensed with.

All to take effect at the close of the current scholastic year.

Even with these enormous sacrifices it is agreed that the schools cannot be maintained, and, therefore, the school board decided yesterday to require fees of those attending the schools. For incidental expenses, \$1.30 from each pupil attending school in the city, and \$1 from each pupil attending school in the country. High-school tuition fee, \$16 from each pupil, or \$2 a month.

It is provided that the manual training teacher shall be allowed the use of rooms in the annex for giving instruction to any class of pupils who arrange with him for his services.

Also that the kindergartens be allowed the use of the rooms heretofore devoted to kindergarten teaching, the board having assurance that an effort will be made by public-spirited citizens to supply the money to meet the running expenses of said kindergartens.

MINING

Machinery for Mine Equipment.

Active preparations are under way by the Roden Coal Co. of Birmingham, Ala., for the development of its coal properties near Daly, in Bibb county. This company was incorporated last summer with a capital stock of \$150,000 to develop about 4200 acres of coal lands, having at that time two openings on the property. It has recently placed orders, through its engineer, the Birmingham Engineering Co., Brown-Marx Building, Birmingham, for the following equipment: Wickes Boiler Co. of Saginaw, Mich., 900-horse-power boilers; Westinghouse Electric & Manufacturing Co. of Pittsburgh, Pa., generator, motor generator, engine-driven exciter, switchboard and two four-ton locomotives; Hardie-Tyne Manufacturing Co., Birmingham, Ala., Corliss generator engine and hoisting engine; Murphy Iron Works, Detroit, Mich., automatic stoker; Pawling & Harnischfeger, Milwaukee, Wis., 10-ton traveling crane; Converse Bridge Co., Chattanooga, Tenn., double-track steel viaduct 300 feet long. It is the intention of the company to ultimately increase the capacity of its plant to 3000 tons of coal per day, which will make additional equipment necessary. The Birmingham Engineering Co. expects to begin the foundations of the plant by the end of the present month, and will soon receive proposals for material and equipment, including steam piping, water piping, tanks and towers, roof ventilators, tile roofing, copper wire, line material, window frames, cement, sand, lime, building brick, white enamel brick, etc.

Large Earnings for Year.

The report of operations for the year ended December 31, 1907, of the Consolidation Coal Co. and its allied companies, including the Fairmont Coal Co., Somerset

Coal Co., Pittsburgh & Fairmont Fuel Co., Clarksburg Fuel Co. and the Southern Coal & Transportation Co., shows gross earnings aggregating nearly \$12,000,000.

At the annual meeting of the stockholders and directors of these companies held last week at the main offices of the Consolidation Coal Co., Continental Trust Building, Baltimore, Md., President C. W. Watson submitted his report, showing the gross earnings of the Consolidation Coal Co. to be \$4,643,804, and net earnings from operation \$1,744,031. The Fairmont Coal Co.'s gross earnings aggregated \$4,860,327, and net earnings from operation \$1,444,028. Gross earnings of the Somerset Coal Co. aggregated \$2,368,865, and net earnings from operation \$490,071. The total production of the Consolidation Coal Co. amounted to 2,092,016 tons, a decrease of 36,863 tons as compared with the year 1906, while the total production of the Fairmont Coal Co. amounted to 4,323,882 tons, an increase of 65,883 tons as compared with 1906. Messrs. C. W. Watson and Jere H. Wheelwright were elected president and vice-president, respectively of all the companies.

Deal for Coal and Timber Lands.

A dispatch from Washington, Pa., states that the Webster Springs Land & Stock Co., composed of Washington and Greensburg (Pa.) capitalists, has purchased 4500 acres of coal and timber land along the Elk river in West Virginia. The property is said to contain five veins of coal, having an average thickness of from five to eight feet, together with about 30,000,000 feet of oak and poplar timber. It is understood that the company does not contemplate the development of the land, but will probably sell the coal on a royalty basis and the timber on the stump. Offi-

cers of the Webster Springs Land & Stock Co. include Messrs. Charles C. Wentz of Washington, Pa., president; W. S. Lane, secretary, and James E. McFarland, treasurer, both of Greensburg, Pa. The land was sold by the Installment Real Estate Co., Ltd., Washington Trust Building, Washington, Pa.

To Quarry Alabama Marble.

Formal organization has been effected of the Alabama Marble Quarries, a company recently incorporated with a capital stock of \$300,000 to develop marble deposits near Sycamore, in Talladega county. The property is located near the line of the Louisville & Nashville Railroad, and investigation is said to show that it contains a marble deposit about 2000 feet long, 400 feet wide and of indefinite depth. The marble is reported as of fine quality, and especially suitable for interior work. Officers of the company are Dr. J. L. Gaston, Montgomery, Ala., president; H. L. McElderry, Talladega, vice-president; Louis B. Farley, treasurer; T. J. Scott, secretary, and J. Taylor Scott, general manager, all of Montgomery.

Big Iron-Ore Deal.

Announcement is made from Cartersville, Ga., that Dr. T. H. Baker has sold an option on his property, adjoining the Sugar Hill property of the Southern Steel Co., to the Virginia Iron, Coal & Coke Co. of Bristol, Va.-Tenn., Henry K. McHarg, 40 Wall street, New York, president, and John B. Newton, Bristol, vice-president. The property is said to be rich in iron-ore deposits, and embraces several hundred acres, the purchase price being reported at \$80,000. The Virginia Iron, Coal & Coke Co. has also purchased the Collier property of 1200 acres in the southern part of Bartow county, Georgia, which is said to contain rich deposits.

Will Open Herbert Domain.

A report from Nashville, Tenn., states that at a conference between Governor M. R. Patterson and several members of the Prison Commission it was decided to open coal lands comprising the Herbert Domain, purchased some time ago by the State, and begin its development immediately. It is stated that work will begin about April 1, and active operations will be conducted under the supervision of State Engineer Reynolds. Among the members of the Prison Commission who conferred with Governor Patterson were Capt. M. M. Marshall, chairman; Henry B. Morrow, secretary, and H. F. Rogers.

Mining Umber and Manufacturing Paint.

The Guntersville Umber & Paint Co., composed of H. C. Henderson, O. D. Street and H. L. Taylor, all of Guntersville, Ala., now has its plant fully equipped with modern machinery for the production of paint and is manufacturing umber into the finished product in four size cans ready for use. The company states it has a ready sale for the product and a contract for two years for the entire output of the mine. The manufacture of ochre and sienna is expected to begin early in the summer.

Buys West Virginia Land.

In a dispatch from Clarksburg, W. Va., Dr. C. R. Peck of that city and Melville W. Peck of Philippi, W. Va., are reported to have purchased for development a large tract of coal land at Tyrconnel, in Taylor county. The property is located near a railroad, and is said to contain coal deposits of an excellent quality. It is understood that the purchasers will begin the construction of railroad switches in a few weeks preparatory to opening a mine.

Mining Notes.

The Southern Coal Co. of Grafton, W. Va., has incorporated with a capital stock of \$100,000, its incorporators being John W. Miller and S. W. Shrader, both of Grafton; M. J. Davis and R. C. Huting, both of Pittsburgh, Pa., and others.

The Tennessee Refining Co. has incorporated with a capital stock of \$100,000 to develop mineral deposits at Black Fox, Tenn., and to manufacture pigments from silex and other minerals to be used in the manufacture of paints, soap, etc. Incorporators of the company include Messrs. Walter E. Ragsdale, J. C. Gunter, Selden Samuel, R. C. Stewart and W. B. Swaney, all of Chattanooga, Tenn.

Operations have begun at the coal mines in Jackson county, Alabama, of the North Alabama Coal Co., F. D. Pierce, Syracuse, N. Y., president, the first shipment of coal having been sent to Decatur last week. It is said to be the intention of the company to make Decatur its chief distribution point, while its offices will be at Bryant, in Jackson county. Barges will be employed for carrying the coal from the mines to Decatur, and arrangements are said to be under way for building a number of these.

Phosphate Shipments Increasing.

The large growth and development of the phosphate industry of Tennessee is illustrated by the record of shipments during the past three years from points on the Louisville & Nashville Railroad. A total of 626,682 tons was shipped from Tennessee over this railroad last year, an increase of about 136,000 tons over shipments for 1906, and 230,000 tons over shipments for 1905. Of the phosphate rock shipped last year, 523,000 tons were for domestic purposes and 102,996 tons for export. The aggregate value of all shipments from Tennessee over the Louisville & Nashville Railroad is estimated at about \$3,000,000, of which sum about \$2,250,000 was paid for rock from Maury county.

Mental Healing. By Leander Edmund Whipple. Publisher, the Metaphysical Publishing Co., 500 Fifth avenue, New York. Price \$1.50.

This work, which is now in its sixth edition, has as its principal aim the concise presentation of the ideas most important to a general understanding of the natural relation between life and health and an explanation which render possible healing by mental influence exerted through the imagining faculty. It is claimed that though practically new to Western thinkers, this idea in some form or other has existed for centuries in the Orient; that it has also been demonstrated and taught to a moderate extent by some of those interested in the mental-healing movement for the past 30 years, and yet that its importance seems to have been underrated and it appears to have been frequently set aside in favor of theories offering greater allurements — theories which perhaps appeal more to the emotions than to the faculties of intelligence exerted through intellectual and scientific thought. The work is not intended to be an argumentative treatise or a technical teaching of the system of thought suggested in its pages, but rather it is a necessarily limited presentation of a vast subject. The author asserts that intelligent understanding is a genuine faculty, inherent in the spiritual nature of every human being that through conscious thought, based upon correct understanding of first principles, any desirable right action may be established by any thinker, and that consciousness of truth contains the greatest health-dealing potency known in life.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

New Railroad Plans.

Among the new railroad projects recently reported are the following:

Georgia, Alabama & Western Railroad Co. chartered to build a 60-mile line from Camilla, Ga., via Newton, Ga., and thence through Baker and Calhoun counties to Fort Gaines, Ga., in Clay county. J. A. Kauffman of Atlanta, Ga., obtained the charter, and he is reported as saying that C. V. Sprinkle of Vincennes, Ind., will furnish most of the capital and will build the road; capital \$500,000; headquarters in Atlanta. The other incorporators are J. A. McLeay and J. B. Shaw of Atlanta, G. L. Wade, C. E. Watt, Bennett & Cox, W. W. Spence, McRae & McNeill of Camilla, Ga.; R. L. and W. H. Hale, H. A. Ledbetter, W. T. Livingston of Newton, Ga.; H. M. Calhoun, W. J. Horseley, B. H. Askew, J. S. Coawart, W. G. Saunders, L. F. Murray of Arlington, Ga., and W. H. Hattaway of Bluffton, Ga. Grading is reported begun between Arlington and Bluffton.

The Cherokee Belt & Interurban Railway Co., capital \$500,000, at Tulsa, Okla., has been chartered to build a line from Tulsa to Collinsville and other towns in the northeastern part of Oklahoma. The incorporators are F. E. Monte of Kansas City, Mo.; C. W. Butterworth of Tulsa, Okla.; E. J. Caudle, E. Pleas and A. E. Leap of Collinsville, Okla.

The Canadian Valley Railroad Co. has been chartered in Oklahoma to build a line from Fort Supply (Mutual), in Woodward county, to Oklahoma City, 150 miles; capital \$2,000,000. E. O. McCance and others of Mutual, Okla., are the incorporators.

The Luehrmann & Western Railroad Co. has been chartered in Arkansas to build a line from a connection with the Iron Mountain division of the Missouri Pacific Railway in Clay county, Arkansas, via Denmark to Reyno, in Randolph county, nine miles; also a branch from Schrenk, on the Iron Mountain Railroad in Clay county, to Denmark, three-quarters of a mile; capital \$20,000. The incorporators are George W. Luehrmann, with Thomas W. Fry of St. Louis, W. M. Alexander of Knobel, Ark.; A. Reicheneder, B. F. B. Alexander and D. Hopson of Corning, Ark., and others.

The Greenville & Carolina Railroad Co. has given notice that it will apply for a charter to build a line from Greenville, S. C., to the boundary of North Carolina, about 25 miles. T. E. Smith, J. W. Kendrick, James A. Bull, John F. Rowland and F. H. Allison are the incorporators.

The Rural Electric Railway & Power Co. has applied to the Maryland Legislature for a charter to build a line from Baltimore to Sparrows Point, Md., and another line from Lauraville, Md., near Baltimore, to the Falls road, near Belvidere avenue, altogether 15 or 20 miles. Extensions and branches may also be built. The incorporators are Hugh J. Gallagher, Walter A. Kephart, W. T. Dietrick, Dr. Harry C. Hess, Robert W. Mobray and Jacob S. Parr; capital \$500,000.

The Kansas City Southeastern Railway Co. is proposing to build a line to be operated by gasoline electric motor cars from Kansas City, Mo., via Leeds, Raytown, Little Blue, Lee's Summit, Cockrell, Lone Jack, Warrensburg and Sedalia to Jefferson City, Mo., where it is to connect with the proposed St. Louis & Kansas City Electric Railway. Dr. Chas. A. S. Sims is president; H. W. Gibson, vice-president; J. C. Hering, engineer; B. F. Shouse, treasurer, and George P. Norton,

counsel, all of Kansas City. Dr. Sims' address is 3724 East 27th street.

The Hartwell & Washington Railway Co. gives notice that it will apply for a charter to build a line about 56 miles long from Hartwell, Ga., via Elberton and Tignall to Washington, Ga.; capital stock \$550,000. W. L. Hodges of Hartwell is attorney for the incorporators, who are J. D. Matheson and D. C. Alford of Hart county, V. E. Hudgens of Gwinnett county, J. A. Moss and W. J. Adams of Wilkes county, W. O. Jones, W. F. Anderson, J. H. Blackwell, J. T. Heard, W. D. Tutt and J. E. Asbury of Elbert county, Georgia.

The Cairo & Norfolk Railway Co., capital \$500,000, has been incorporated at Mayfield, Ky., to build a line from Fort Jefferson, Ky., on the Mississippi river, to Bristol, Va., about 500 miles. The incorporators are L. W. Goode and E. E. Weston of New York, M. W. Kelly of Madison, Wis.; W. A. Usher, R. E. Lockridge, B. A. Neal, H. C. Neal, E. S. Beaumont, Arthur E. Thomas, F. R. Allen and C. B. Goode of Mayfield, Ballard and other places in the western part of Kentucky. L. W. Goode was interested some time ago in the proposed Cairo & Tennessee River Railway, which was planned to cover practically the same route.

Brinson Railway to Extend.

President George M. Brinson of the Brinson Railway writes from Springfield, Ga., to the MANUFACTURERS' RECORD thus:

"We have completed our track from Savannah to a point four miles north of Springfield, and are arranging to issue bonds on our completed road with the idea and intention of completing an extension to Sylvania, the county-seat of Screven county, which will be 28 miles more to build, Sylvania being by our line 57 miles from Savannah. Our engineer in charge of this work is Mr. W. A. Young.

"The road which we now have is standard and in every particular, amply supplied with new equipment, all of the best make; in fact, our passenger and freight equipment is as good, or probably better, than any which enters the city of Savannah.

"The territory which we will traverse between Springfield and Sylvania is about the best there is in the South today without railroad facilities. We are going generally up the valley of the Savannah river through a very rich farming section, which has been, to use a figure of speech, asleep since the time of the Indians, on account of the uncertainties of river navigation. Our line is for the purpose of developing the rich and fertile territory which lies up the valley of the Savannah river, and the capacity of this section for development is extraordinary.

"Springfield, to which point our trains now run, is the county-seat of Effingham county. It is growing amazingly, and the country above mentioned, when we get there with our railroad, will blossom like the rose."

Difficult Railroad Construction.

Concerning the construction of the large bridge over the Atchafalaya river by the Colorado Southern, New Orleans & Pacific Railway, a report from Crowley, La., says that about 1000 feet are finished and about 300 feet are required to complete it. The building of this bridge has proved very difficult, on account of the nature of the ground on which its piers rest, and also because of high water in the river for a long time. The piers are of stone, and they stand on a foundation of the same material, which, in turn, rests on mattresses made of willows. All the piers are finished, but the completion of the bridge is delayed by continued high water.

On each side of the structure is a long stretch of swamp land, which extends eight miles to the east and 12 miles to the west. These 20 miles of swamp were covered by the railroad by building trestle-work, which after completion was filled in with dirt hauled from a point near Opelousas, La., about 20 miles away from the river. There has also been much water in the swamp, but the high water in the river was intensified by the building of levees which prevent the waters of the river from spreading out over the swamp except by backing up from a point below the completed levees. Thus there was recently a depth of 90 feet of water in the river, or 40 feet more than the average stage.

The railroad company was granted an extension of time by the local authorities for the completion of the bridge on account of the remarkable physical difficulties of the work.

DALLAS TO SHERMAN.

Electric Railway Expected to Be in Operation This Coming Summer.

The Texas Traction Co., according to a report from Dallas, Texas, is now laying about 6000 feet of track per day on its electric interurban railway from that city to Sherman, Texas, 65 miles. Rails weighing 80 pounds to the yard are being used, and the track is already laid from Sherman to McKinney, Texas, where the erection of the overhead work has begun. The tracklayers are now about 20 miles from Dallas and working toward that city. The principal power-house, situated at McKinney, is to be tested on April 1, and the substations at Allen ad Plano, Texas, are completed.

It is expected to have the line wholly finished and in operation by June 1, when the cars are to be received. About half the amount of track is now laid, and 25 miles of poles have been erected. The substation at Sherman has been finished, and most of the machinery is installed. It is the same way at Van Alstyne, Texas. The substation at Dallas is finished and half of the machinery is in. The tracklayers are expected to reach Dallas certainly by April 25, and it appears probable that the expectations of completion and operation by June will be realized.

MAY GO TO SOUTHPORT.

Terminal Railroad Plan Reported in Connection With the South & Western.

According to a dispatch from Bristol, Va., the stockholders have approved the change of name of the South & Western Railway to the Carolina, Clinchfield & Ohio Railway.

It is also reported from Bristol that George L. Carter, president of the above company, has acquired the charter of the North Carolina & Virginia Terminal Railroad Co. to build a line in Eastern North Carolina, and having a water frontage of about a mile at Southport, N. C. This apparently confirms previous rumors that the South & Western would seek an outlet on the Atlantic at Southport via the Seaboard Air Line to a point near Wilmington, N. C., and thence by a new line to the desired terminal.

The Bristol & Kingsport Railway, recently incorporated in Tennessee, will, it is said, soon be built in order to give additional facilities to the South & Western in that section.

New Equipment, Rails, Etc.

The Atlantic Coast Line has ordered 100 freight cars from the South Baltimore Steel Car & Foundry Co.

The Norfolk & Western Railway has ordered 10,000 tons of rails from the Carnegie Steel Co.

The Tampa & Sulphur Springs Traction Co. of Tampa, Fla., has, it is reported, given an order for cars to the St. Louis Car Co.

The Little Rock Railway & Electric Co. of Little Rock, Ark., has received and put in service seven semi-convertible cars.

The Pennsylvania Railroad Co. has completed its first all-steel passenger car and has put it in service between New York and Philadelphia. It is 70 feet long, and seats 88 persons. The weight is 116,000 pounds. The car was built at the company's shops, which will build 24 more, while the American Car & Foundry Co., it is said, will build 90 and the Pressed Steel Car Co. 85, all for the Pennsylvania Railroad.

Camilla to Newton.

Mr. C. Horace McCall, 305 Century Building, Atlanta, Ga., writes the MANUFACTURERS' RECORD concerning the Camilla & Newton Railway Co., lately chartered. He says the road is now graded, and it is owned by Mr. Benton Odom of Newton, Ga., and himself. The line is 10 miles long, and connects Camilla and Newton, besides a midway station. It is expected to increase the mileage materially after laying track on this 10 miles of road. The railroad will connect with the Atlantic Coast Line, and will run through some of the best lands in Georgia, developing virgin territory. The owners are open for a partner with funds.

GATES MAY BE INTERESTED.

Reported to Have Taken Up Port Arthur & Houston Short Line.

According to a report from Port Arthur, Texas, John W. Gates made the statement there that he has raised \$750,000 in New York for the proposed road, and has himself added \$250,000 to this amount to build the line, which was promoted by C. S. Cleaver and others.

Mr. Gates is also reported as saying that he has arranged for a steamship service between Port Arthur and ports in Central America, Cuba and Porto Rico.

Railroad Notes.

A. P. Finley of Sherman, Texas, is reported to have been granted a patent for a compound rail for railroad track.

Survey is reported begun at Washington, N. C., for a street railway which is to be operated with gasoline motor cars. The line is projected by the Washington Investment Co., W. E. Jones, manager.

The Washington, Baltimore & Annapolis Electric Railway Co. has operated its first car through to the Baltimore terminal, and proposes to begin regular operation between Baltimore, Md., and Washington, D. C., April 1. The line has been operated between Annapolis, Md., and Washington for several weeks.

The Missouri & Kansas Interurban Railway, operating between Kansas City, Mo., and Olathe, Kan., is reported sold to the interests which control the Kansas City-Western Railroad, which runs from Kansas City to Leavenworth and Fort Leavenworth. The first-named line was built by W. B. Strang and others.

Broad River Power Co.

It is understood that the Broad River Power Co. has had surveys completed for its proposed development of the water-power of the Broad river near Elberton, Ga. Among those interested are Messrs. A. S. J. Stovall, A. S. Oliver, E. B. Tate, L. G. Swift, W. A. Swift, Duncan Tutt and T. H. Verdell, all of Elberton.

The MANUFACTURERS' RECORD has been advised that the Solomon-Norcross Company, Candler Building, Atlanta, Ga., will be the engineer in charge, and has made extensive surveys.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

Majestic Manufacturing Co.

The Majestic Manufacturing Co., of Belmont, N. C., has placed practically all contracts for building and equipping its mills, and expects to be manufacturing by November 1. Its organization and other details have been stated previously by the MANUFACTURERS' RECORD. The mill building will be one story high, 125x340 feet, with foundation and floor of concrete, and maple flooring on top of the concrete. Stuart W. Cramer of Charlotte, N. C., is the architect in charge, and contracts for the machinery have been awarded through him to the Whiting Machine Works of Whitinsville, Mass. A. K. Loftin of Lincolnton, N. C., is the building contractor. The Majestic mill will have an equipment of 10,944 spindles for manufacturing yarns from 80s up, using Egyptian and Sea Island cotton. The company is capitalized at \$200,000 and A. C. Lineberger is president.

Free Site for Cotton Mill.

That the Birmingham district is an advantageous one for manufacturing is evidenced by the many large and different kinds of plants located there, to which important additions are constantly being made. In view of this it may interest cotton manufacturers to know that free land for a cotton-mill site is being offered by landowners. The location is on two railroads, with abundant water supply and labor at hand. For particulars as to this proposition address the Ryan Real Estate Co., Woodward Building, Birmingham, Ala.

To Enlarge Hosiery Mill.

The Whitehead Hosiery Mills of Burlington, N. C., will increase capital stock from \$10,000 to \$15,000 for the purpose of adding to its present capacity for manufacturing fine-gauge seamless half-hose. This company has previously been reported by the MANUFACTURERS' RECORD. It organized last October and completed its plant in January, having an equipment of 50 knitting machines. R. H. Whitehead is the manager.

To Double Plant.

The Arraon Cotton Mills of Rock Hill, S. C., will double its equipment, and it is understood that Alex. Long, president of the company, is now in Massachusetts awarding contracts for the necessary machinery. This company is now operating 10,240 spindles and 280 looms. It was mentioned by the MANUFACTURERS' RECORD of December 26 as probably to double plant during 1908.

Wants a Cotton Mill.

The MANUFACTURERS' RECORD is advised that Cotton Plant, Ark., is an advantageous location for a cotton mill. Two railroads provide transportation facilities, 10,000 bales of cotton can be bought from wagons, and labor is available. Full information can be obtained by addressing Will T. Trice at Cotton Plant.

To Increase Capacity.

The Oconee Knitting Mill of Walhalla, S. C., will increase capital stock from \$30,

000 to \$50,000 and add to its productive capacity by adding new machinery. At present the company has 70 knitting machines; daily output 400 dozen pairs of whole and half hose. This is to be increased to 500 dozen pairs.

The Anna Cotton Mills.

The Anna Cotton Mills of Kings Mountain, N. C., has been incorporated with a capital stock of \$95,000 for the manufacture of cotton yarns, cloth, etc. Messrs. J. S. Mauney, F. Dilling, J. M. Williams, C. A. Dilling, D. M. Baker and S. A. Mauney are the incorporators.

Planning a Cotton Mill.

The West Colorado Land Co., B. N. Garrett, president, Colorado, Texas, is planning the erection and equipment of a cotton mill, and is prepared to correspond relative to estimates on buildings and equipment of machinery. No details have been decided.

A Calico Printing Plant.

Messrs. W. H. Chadwick, formerly of the Algonquin Printing Co. of Fall River, Mass., and W. H. Carter of the American Bag Co. of Memphis, Tenn., are planning the organization of a company to establish a calico printing plant.

Cotton Goods for Cuba.

Messrs. T. E. Besosa & Co., P. O. Box 810, Havana, Cuba, are soliciting accounts of manufacturers of printed drills and calicos, all kinds of bleached goods, and undershirts.

Textile Notes.

It is reported that the American Bag Co. of Memphis, Tenn., is arranging to build its proposed mill to produce cotton cloth for bag manufacturing.

W. J. Hurlbut, industrial agent of the Southern Railway Co., Washington, D. C., is negotiating with Northern capitalists relative to the organization of a company to build a large cotton yarn and cloth mill at Memphis, Tenn.

James P. Grey of Bedford City, Va., is the principal in the proposed cotton-mill company reported last week. He contemplates organizing with \$100,000 capital and building a 5000-spindle plant. No other details have been determined.

Industries for Port Arthur, Texas.

On March 21 the business men of Port Arthur, Texas, held a meeting at which important announcements were made of new manufacturing enterprises to be established at Port Arthur. These announcements came from John W. Gates, the well-known New York capitalist who recently announced his intention to become a citizen of Port Arthur, where he has extensive interests. Mr. Gates is credited with stating that he had about completed arrangements whereby there will be established a million-dollar mill for manufacturing paper pulp and paper from rice straw, a large cottonseed-oil mill and a fertilizer factory. Several railroad projects that will assist in promoting the industrial development of Port Arthur and its territory are also under consideration. Mr. Gates' New York office is in the Trinity Building at 111 Broadway.

The Louisville Cotton Oil Co. of Louisville, Ky., J. J. Caffery, president, has purchased a site and will erect a cottonseed-oil mill near the present plant of the company. Definite plans for the structure and equipment have not been announced.

A grower near Augusta, Ga., expects to ship this year 50,000,000 yam slips, each slip good for a hill of the vegetable yielding about 25 bushels to the acre.

FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

Products Wanted in France.

John N. Bourke, American consular agent, Honfleur, France:

"I am a practical student of certain American products and their chances of commercial success in the French market, with the object of promoting their sale no less than for taking agency for them. I beg you to accord me the hospitality of your columns by inserting in them a note informing those who may be interested that I am ready to maintain a depot for the display of samples of articles for those who control them with an agency in this country, my object being, as such representative, to be able to submit the goods to the manufacturers of France. Interest is in canvas, paper, waterproofing material, awnings, etc.; American builders' hardware, iron fixtures for gates, doors and windows; adjustable venetian shutters; machines and tools for woodworking factories; tools for carpenters and joiners; dovetailing and mortising machines; water colors and water-color paintings; wire fencing and wire cloth; petroleum; gas and electric-lighting supplies. I would say, moreover, that I am exceptionally well situated to display samples and push sales of merchandise of all kinds, and I predict for the above goods a large business, since American goods can easily compete with those of French make as far as price is concerned, the French being in many cases of inferior quality. Will you kindly inform American manufacturers with whom you are in communication that it is always preferable whenever possible to have catalogues in French with prices given in French money; transactions will then be more numerous because less constrained."

Rice and Tanning Machinery.

Alfred L. Nickerson, Cidade de Goyaz, Estado de Goyaz, Brazil:

"Having had inquiries as regards machinery used for tanning, and not seeing the name of any maker in the MANUFACTURERS' RECORD, I write to ask you to kindly favor me with the address of some manufacturer of this kind of machinery or ask some of them to send me their catalogues and price-lists, which would save time for me. There are several small tanneries here that wish to obtain modern machinery, of not too large a size, for treating hides and grinding bark. Being an American myself, I am doing my best to interest the people here to deal with American manufacturers, and have had some success so far. I have obtained the contract for a steamboat for the Government here, which I am having built by the Gas Engine & Power Co. of Morris Heights, N. Y. I also hope to get an order for some rice machinery."

Dry Goods, Furniture, Garments, &c.

T. E. Besosa & Co., P. O. Box 810, Havana, Cuba:

"Our principal lines are furniture and dry goods. We are at present soliciting accounts of manufacturers of undershirts, printed calicos and drills, all kinds of bleached cotton goods and furniture in general. We are selling agents and importers on commission for shipments direct from the manufacturer, and we import on our own account when convenient, especially when necessary to import in large quantities in order to save expenses. We would be glad to take hold

of other lines that could be worked advantageously in this market."

Zincwhite for Germany.

Oscar Polack, Brandstwile 4, Hamburg, Germany:

"I have some inquiry for zincwhite, and would like to get the general agency for Europe of a good concern. When you can recommend me to some reliable manufacturers, please do so."

Protecting Foreign Laborers.

Editor Manufacturers' Record.

On the night of the 10th instant a mob composed mostly of negroes made an attack upon a small colony of Greek laborers. The foreign labor was of an unusually good class. As quickly as it was possible the local authorities took the outrage in hand vigorously, and the county and State authorities followed with equal promptness to the extent of calling to the scene of the trouble, by the special mandate of the Governor, a company of State troops, that stayed on the scene and assisted the State and county officers in making arrests until all the arrests were made and quiet was restored.

There were no lives lost, and the wounded were taken into the charity of the company and of the community and given surgical attention promptly and hospital accommodations furnished, and they are all now out of danger and doing well.

It is desired to give publication to these facts and of the prompt and vigorous action taken by the local and State authorities for the purpose of setting forth the true policy of the controlling sentiment in this community and of the policy of the county and State governments with respect to the importation of good foreign labor. Every officer of the State courts, from the Governor to the Sheriff, gave the company emphatic encouragement and assurance that any labor of this class that it might import should have protection at any possible hazard or expense, and it is confidently believed that the unusual display made by the officers of the court, as above indicated, has thrown a sufficient impression of disapproval upon this outrage and given sufficient assurance of the policy of the State Government toward the protection of imported labor that it will not be repeated again. The policy of importing good foreign labor to this community is a favorite subject of the controlling sentiment in the policy of the State government and local county authorities, and in order that this may be known to the manufacturing and business public this publication is made.

A. M. DUMAY,
President Chamber of Commerce.
Washington, N. C.

Builders' Club of Oklahoma City.

At a recent meeting in Oklahoma City, Okla., of a number of the architects and contractors and machinery and building material dealers from all parts of the State, the Builders' Club of Oklahoma City was organized for the purpose of bringing about a better acquaintance among those associated with the building interests of Oklahoma. One feature of the club will be the library, to which building material and machinery firms are invited to send their catalogues, pamphlets and other literature. The majority of the architects throughout the State have promised to send the club blueprints and specifications when they need estimates. A handsome suite of rooms has been furnished in the Martin Building at Harvey and Main streets.

The Mississippi Retail Hardware Association will have its annual meeting at Greenwood May 11 and 12.

MECHANICAL

Harbor Improvements at Cleveland, Ohio.

The constantly-increasing tonnage on the internal waterways, particularly along the Great Lakes, has resulted during recent years in largely-increased size of vessels. The great ships of the present day carrying the bulk of the vast tonnage of ore, coal and grain have a length of more than 600 feet. Harbor facilities ample to accommodate the lake carrier of a few years before, as the size of the ves-

the navigation of the river by large vessels. A policy of new bridge construction along modern lines was inaugurated early in the campaign for an improved internal harbor, and has resulted in the removal of a large number of center pier swing bridges and the construction in their stead of the modern type of rolling-lift bridge, giving a wide unobstructed channel for the passage of vessels.

One of the most important changes in bettering conditions so as to facilitate the handling of vessels of the largest size was the recent reconstruction of the Baltimore & Ohio Railroad Co.'s bridge across the

able span center to center of bearings of 230 feet, the longest span single-leaf bascule bridge in the world, the clear channel for navigation measured between faces of piers being 210 feet. The total length of steel work, including the short plate girder fixed approach span at the rear end of the bridge, is 334 feet. The bridge has a width of 20 feet center to center of trusses, and a minimum clearance of 22 feet above the ties. The counterweight is of Portland cement concrete carried in steel boxes in the plane of each truss, the bridge being counterweighted so as to be at rest in all positions.

An interesting feature of this work was the erection of the new bridge in its open position without interfering with the railroad traffic over the old swing bridge or the operation of the old bridge for the passage of vessels. The front pier of the new bridge was constructed under the old swing span on the channel side of the center pier. The main piers of the new bridge were built under the approach to the swing, the superstructure being erected on these piers so as to provide ample clearance for the operation of trains over the old bridge at all times.

The bridge was built for the Baltimore

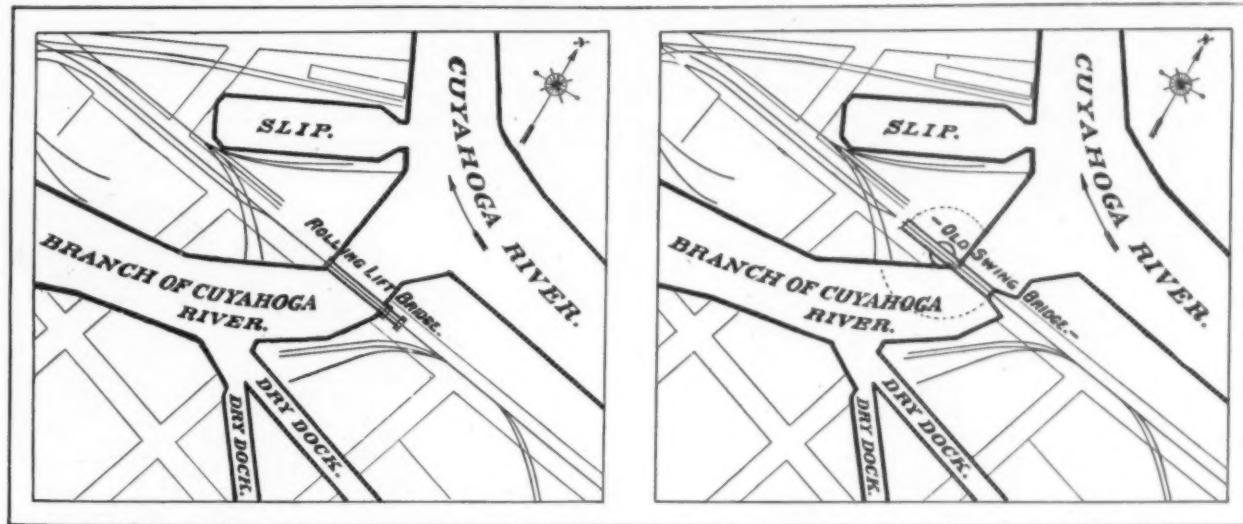


FIG. 1.—HARBOR IMPROVEMENTS AT CLEVELAND, OHIO.

sels increased, became taxed beyond all possibility of the economical handling either of ships or cargo. This state of affairs and the certainty that the future would bring a further increase in the dimensions and tonnage of vessels induced both the Federal and local authorities at all the principal lake ports to arrange for the improvement and development of the internal harbor systems afforded by the rivers that had brought to these cities their early prestige as lake ports. Cleveland, Ohio, at the mouth of the Cuyahoga river, was one of the first of the large lake cities to recognize the necessity of improving the river as a means not only of conserving vested interests, but of developing the entire valley of the Cuyahoga river into most advantageous and economical sites for manufacturing industries and railroad terminals. Economical and convenient terminals for the interchange of freight is one of the most vital problems confronting railroad managements of the present day. Freight terminal property centrally located is becoming a constantly-increasing tax on railroad capital, the necessary ground areas constantly increasing with the growth of population, industries and resulting increased traffic.

The Cuyahoga river pursues a winding course for several miles through the heart of Cleveland. It has only one branch, known as the Old River bed, which runs westerly for about a mile from a point a few hundred feet inside of the harbor mouth. The river originally was narrow, shallow and crooked, but in the process of improvement it has been widened, deepened and straightened, and projects are now pending that will remove the remaining natural obstructions in the course of the stream.

In a city the size of Cleveland, with so important a navigable waterway through its center, the matter of movable bridges has naturally been a subject of important consideration by both municipal and Federal authorities. More than 20 bridges, both highway and railroad, now span the river. These structures were originally nearly all of the center pier swing type, and for the most part very obstructive to

Old River bed on the line of West River street. A long-span single-leaf Scherzer rolling-lift bridge was completed and placed in service at this site a few months ago. It replaced a swing bridge used for many years to reach the extensive ore docks on the north side of the river. Fig. 1 shows a plat contrasting the channel of the old and new bridge, the old bridge having its center pier on the westerly side of the river, with an approach extending well out into the channel on the opposite side. In the new structure the main supporting piers on which the bridge rolls are placed on the easterly side of the river

The bridge is operated by two alternating-current electric motors of 75 horsepower each, the controller governing the motors being placed in the operator's house. The motors are equipped with solenoid brakes operated by an independent switch on the switchboard in the operator's house. The power is applied in the operation of the bridge by pinions on the main operating shaft engaging with fixed racks placed on independent supports outside of each truss. The operator's house also contains indicators which show to the operator, both day and night, all positions of the bridge during operation. In-

& Ohio Railroad Co., and was constructed under the charge of the railroad company, J. E. Greiner of Baltimore, Md., assistant chief engineer, the design being prepared under the specifications for material and workmanship for steel structures and the design and erection of bridges of the Baltimore & Ohio Railroad Co. The design of the superstructure, operating machinery and electrical equipment was prepared by the Scherzer Rolling Lift Bridge Co., Albert H. Scherzer, president, Chicago, Ill., this bridge company also maintaining a general consulting engineering supervision over the construction and erection of the

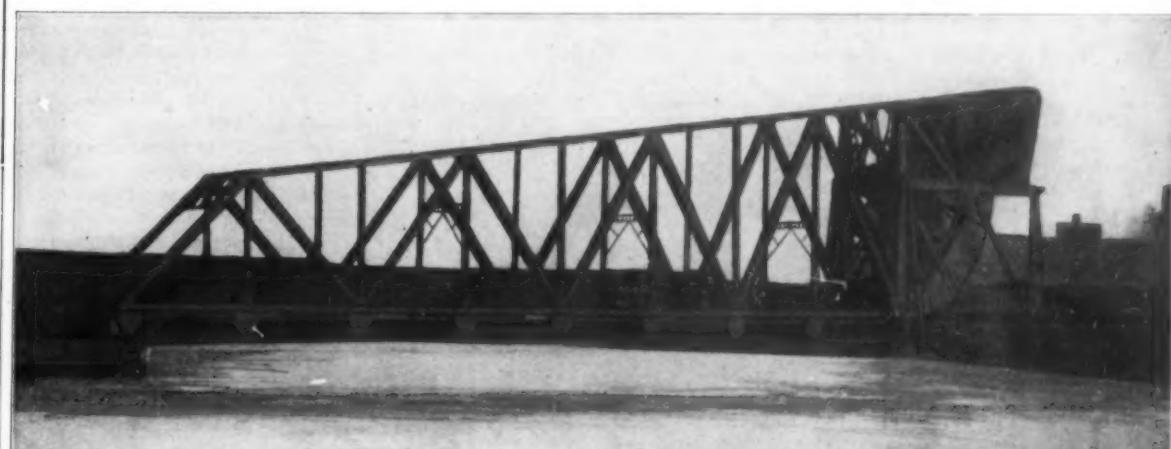


FIG. 2.—HARBOR IMPROVEMENTS AT CLEVELAND, OHIO.

with the front or rest pier on the edge of the far side of the channel, making the entire width of the river available for navigation. The plat illustrates, too, the particular advantage of the rolling-lift bridge in making available all dock space adjacent to the bridge, the disadvantage of the swing bridge in this respect being materially more apparent when the main pier is located at one side of the channel, as was the case in this instance.

A general plan of the new bridge is shown in Fig. 2. The general plan of the bridge is single-leaf single-track through bridge of the Scherzer type, having a mov-

able span center to center of bearings of 230 feet, the longest span single-leaf bascule bridge in the world, the clear channel for navigation measured between faces of piers being 210 feet. The total length of steel work, including the short plate girder approach span at the rear end of the bridge, is 334 feet. The bridge has a width of 20 feet center to center of trusses, and a minimum clearance of 22 feet above the ties. The counterweight is of Portland cement concrete carried in steel boxes in the plane of each truss, the bridge being counterweighted so as to be at rest in all positions.

The substructure consists of one front pier, three main piers carrying the track girders on which the bridge rolls, and an abutment supporting the rear end of the plate girder approach span. These piers are of concrete carried on piles.

Draper Company's New Hopper.

Textile manufacturers will be interested in the accompanying view of the Draper Company's new hopper. Referring to this machine, the company says: "We used another cut of this latest hopper in our recent loom book, 'Labor-Saving Looms,'

but were not quite ready to recommend it for universal use, in view of its short period of trial. Since going through the necessary, but slight, changes to weed out first faults, we now find it very satisfactory. It does away with the rocking support under the head of the bobbin, which has often caused trouble by catching and breaking; it has no confusion of notches in the small end bobbin disc; bobbins are more easily inserted into place; bobbins

equipment best adapted to his situation, better results will be obtained all around.

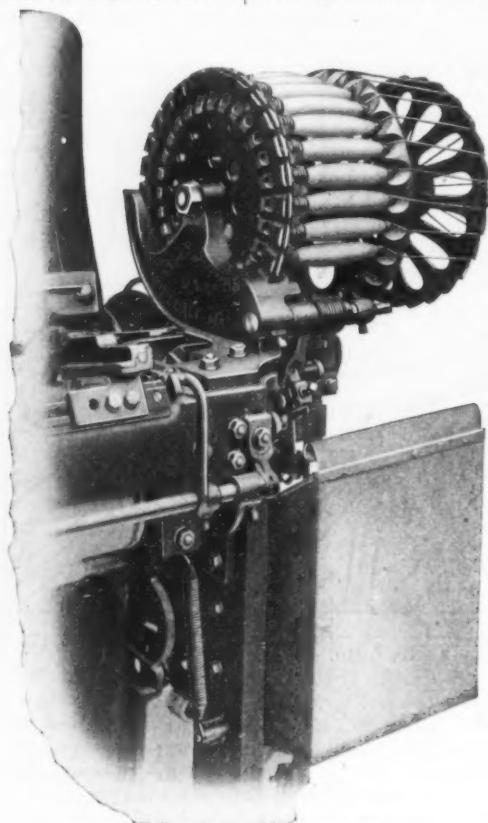
The company further says: "There are some few principles upon which machinery of this class is constructed that are physically correct and cannot be altered. In the first place, all turbines of the same diameter should run at practically the same speed when placed under an equal head. A turbine, say, 40 inches in diameter, measured at the point where the

water is unretarded, of the same diameter that the wheel is claimed to be. A little thought will show that it is possible to discharge only a certain amount of water through a hole of a certain size.

"Where there is trouble with backwater a turbine that has a broad, flat, roomy discharge should be used. A turbine should be able to produce its tailed power under whatever head it may be working.

"If it is a question of using horizontal turbines it is sometimes preferable to use a single wheel instead of a pair. In a pair of turbines one has double the liabilities, twice as many working parts and the risk of breaking of gates and other fixtures is double, to say nothing of the cost. But in the use of single horizontal wheels one point in particular needs careful investigation; that is, how is the end thrust in this turbine taken care of? See that the wheel you purchase is not hampered in this regard.

engine or from an electric motor, and until the advent of the steam turbine the engine and motor were the most satisfactory methods. But the belt takes up space and wastes power, and the direct-connected set is out of the question in the case of the steam engine because of the low speed of the engine. A direct-connected motor, although feasible, cannot be used unless the pressure to be maintained and the fan speed are comparatively low, a condition not often found in the average foundry. Again, for anything like a satisfactory direct-connected motor drive, the speed must be reasonably constant, which is impossible for cupola work, for the amount of air and the pressure varies at different portions of the heat. Standard designs of armatures are not safe for high rotative speeds, and, all things considered, the direct-connected motor set is not of sufficient flexibility and endurance to make it a favorite installation.



DRAPER COMPANY'S NEW HOPPER.

are transferred into the shuttle with less power; the rotating mechanism locks more positively; the filling stud is easily removed by hand, a T-shaped handle being cast on the holding screw. We are ready to supply this hopper as desired."

The Draper Company's offices are at Hopedale, Mass.

Single Horizontal Trump Turbine.

In selecting a turbine water-wheel there are a number of important features to be

water strikes the runner, will run at practically the same speed in one wheel that it does in another. Obtaining a higher speed is absolutely impossible unless the diameter of the turbine is reduced, and when you endeavor to put the same amount of water through a wheel that is 40 inches in diameter at the point where the water strikes the runner in one wheel and get, say, a certain number of revolutions, you cannot get any higher speed on this same wheel unless its diameter is re-

"In purchasing turbines for electrical purposes consult the turbine builder first and learn what speed under your head will give the best results. Many go to the generator builder first, contract for their generators, then get up against it when it comes to buying a turbine to fill the bill.

"There is another tendency with parties who develop water-power, and that is, to try to get something for nothing. Never put in a turbine of larger capacity than is necessary. This is where many valuable water-powers are proven worthless."

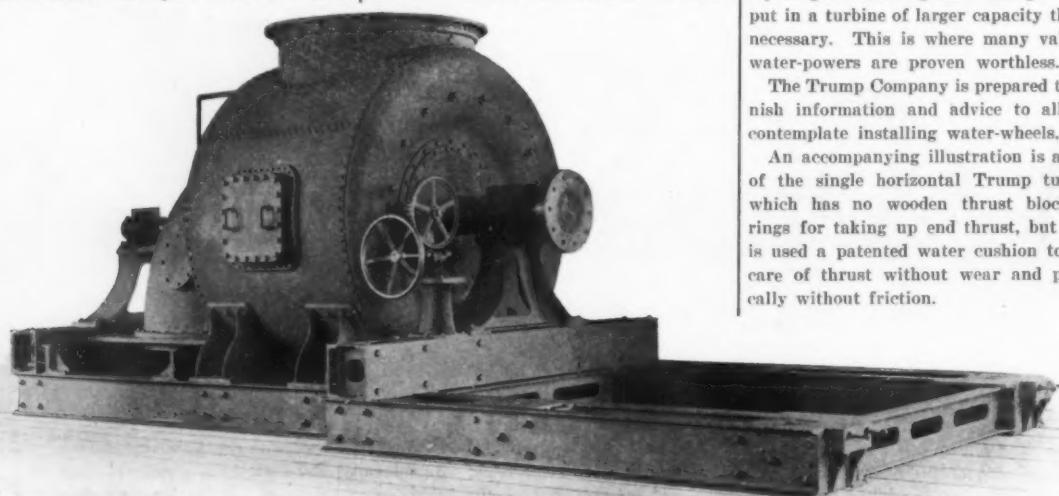
The Trump Company is prepared to furnish information and advice to all who contemplate installing water-wheels.

An accompanying illustration is a view of the single horizontal Trump turbine, which has no wooden thrust blocks or rings for taking up end thrust, but there is used a patented water cushion to take care of thrust without wear and practically without friction.

Although some foundries are equipped with electricity and the blowers are motor-driven, the expense of repairs and the fact that few foundries have men of sufficient skill to make these repairs has greatly added to the expense of maintenance. The chief objections to driving the blower from an engine are the defects of the reciprocating engine; that is, the foundry is liable to shut down if water comes over in the steam and breaks the cylinder head, or if any of the numerous vital parts of the valve gear become broken. Although the question of economy is not of great importance in a foundry, the economy of the reciprocating engine deteriorates to a marked degree as the cylinder, valve and seat becomes worn.

The turbine cupola blower is probably the best combination yet produced for this work. It is built for continuous operation without attention, and it is adapted for either continuous service in supplying iron to converters in large steel works, or for small foundries requiring blast but a few hours a day. The turbine set, as shown by the accompanying illustration, has none of the disadvantages of the reciprocating engine or motor set. Its great flexibility permits of direct connection, thereby avoiding the use of all belts and gears. The disastrous results from water coming over from the boiler need not cause alarm if a turbine is used, for the water would simply slow down the turbine until it had been expelled in the exhaust. The abundant clearance in the turbine makes this accumulation of water harmless.

The type of turbine made by the B. F. Sturtevant Company of Hyde Park, Mass., is exceedingly well adapted to driving the Sturtevant cupola blower, for it is of the same speed and power. It is exceedingly



SINGLE HORIZONTAL TRUMP TURBINE

taken in consideration, and the Trump Company, hydraulic engineer, of Springfield, Ohio, states that if the manufacturer or engineer who contemplates the purchase of a water-wheel will only use a little judgment before he decides on the

duced at this same point, and then your wheel is choked. Keep your eye on the high-speed fellow.

"In some instances an attempt is made to crowd more water on the turbine than can be discharged through a hole, where

New Method of Driving Cupola Blowers.

It has been the custom for many years to think that the fan blower for the cupola must be driven by a belt from a steam

simple, both in construction and operation, and since a weekly filling of the bearings is the only attention required, any man around the foundry can look after it. The economy of the steam turbine is practically constant, for there are no parts to wear and get out of adjustment, parts which in the reciprocating engine are of great importance to the steam consumption. The ease with which the power may be varied to suit the conditions of air pressure is a feature that will commend this set to all foundrymen.

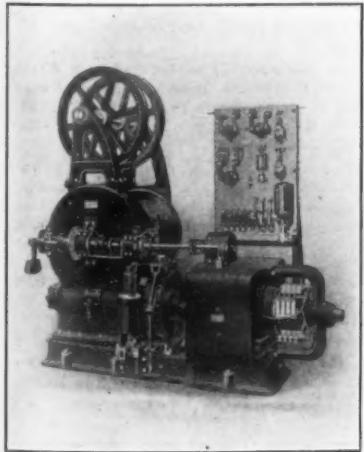
Elevators and Electric Equipment.

Wherever elevators are required, for passenger or freight service, it is usually



CAB DESIGN OF OHIO ELEVATOR & MACHINE CO.

the electrically-operated equipment which is specified for modern buildings. There has consequently been active interest exhibited in designing and manufacturing electric elevators during recent years. There, of course, remains an important demand for elevators operated by hydraulic, belt or hand power. Among the elevator manufacturers who build and furnish any kind of elevator and operating equipment for any power which the buyer may select is the Ohio Elevator & Machine Co. of Columbus, Ohio. This company manufactures and installs complete equipment.



ELECTRIC EQUIPMENT FOR ELEVATOR.

ments, including the cabs, inclosures and motors, for operation on direct current of any voltage. Its products are found in many important buildings throughout the country, one of the most recent installations being for the eight-story Coyle & Richardson dry goods store at Charleston, W. Va.

Two accompanying illustrations present views of one of the company's designs of elevator cabs and a full magnet control electric equipment for high-speed passenger service.

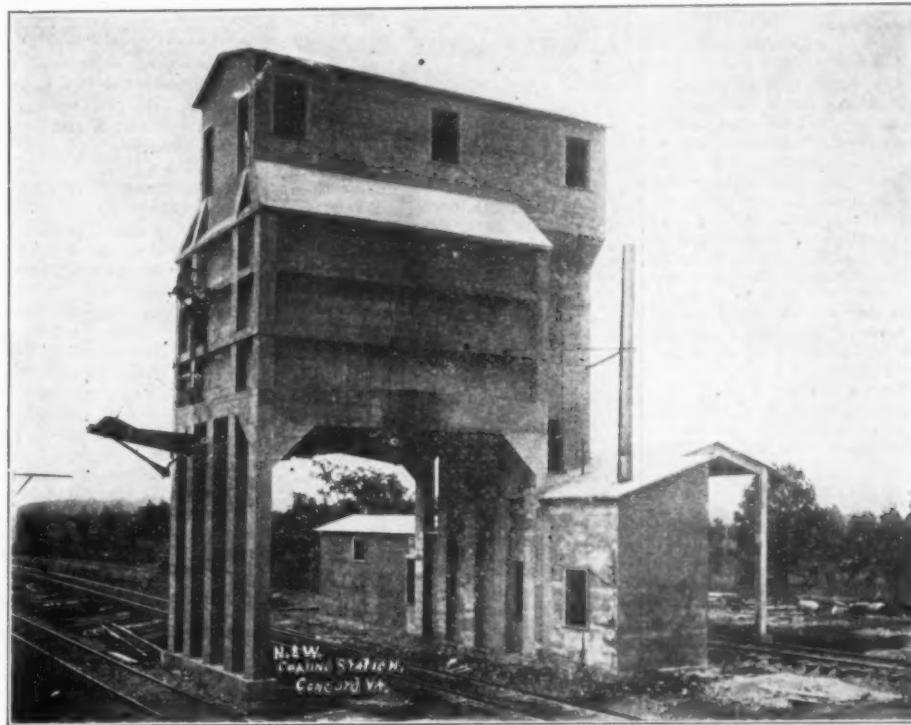
Reinforced Concrete Coaling Station.

In view of the progress being made in concrete construction the two accompanying illustrations are of interest. They present views of the coaling station constructed at Concord, Va., for the Norfolk & Western Railroad Co.

factured by the Link-Belt Company of Philadelphia, Pa., the arrangement and operation being very ingenious, while within a fire and weather proof building, which is absolutely rigid, the life of the machinery is very much greater and the repairs very much less than in buildings constructed of timber or steel.

from the weather; the whole operation is done with great rapidity.

McLaughlin Bros. erected this structure under the greatest difficulty in getting labor and supplies and during a season when the railroad was never so busy. They completed and delivered this im-



A REINFORCED CONCRETE COALING STATION.

The entire structure is of concrete, no other building materials being employed. The pocket spans the main tracks of the railroad and has a capacity of nearly 300 tons.

The arrangement of chutes is such that two or three locomotives can coal at the same time, and in cases of emergency the

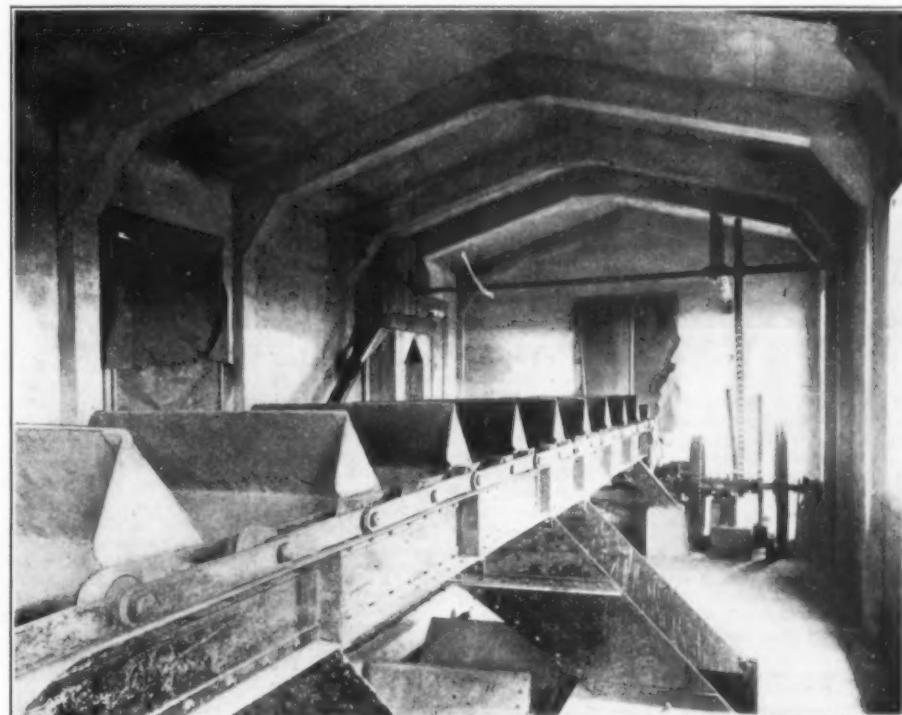
This concrete construction is the work of McLaughlin Bros., Inc., of Baltimore, Md.

Although the pocket is over 60 feet in the air and carries nearly 300 tons, there is no apparent vibration even with a heavy train passing through it at high speed. Due regard was had for the qual-

portant work in 60 working days, without stopping a train.

Twin City Power Co.

The MANUFACTURERS' RECORD is advised that the Twin City Power Co. of Augusta, Ga., has not yet determined when active construction will begin on its pro-



COALING STATION INTERIOR, SHOWING COAL-HANDLING MACHINERY.

coal-handling machinery will supply as many engines as can be accommodated on the tracks within reach. It comprises also a sand pocket, with a contrivance for thoroughly drying the sand before it is stored, so that a supply of clean, dry sand is always available.

The elevator machinery is that manu-

factured by the Link-Belt Company of Philadelphia, Pa., the arrangement and operation being very ingenious, while within a fire and weather proof building, which is absolutely rigid, the life of the machinery is very much greater and the repairs very much less than in buildings constructed of timber or steel.

Coal is delivered to the elevator machinery from a siding, where the car drops the coal into a hopper, this hopper being covered by a concrete roof to protect it

posed dams and electric plants. When the management has decided details announcements will be made public. The company should be addressed care of J. F. Springfield, 10 Bridge street, New York.

Subscribe to MANUFACTURERS' RECORD.
\$4 a year, or six months for \$2.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

BRIDGES, CULVERTS, VIADUCTS

Butler, Mo.—Bates county will construct steel bridge over Siaw branch and erect approach spans for drainage bridge No. 6 of River Drainage District No. 1. Contract will be let April 8; E. E. Borron, County Highway Engineer. (See "Machinery Wanted.")

Charlotte, N. C.—City, Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, Va., and Southern Railway, D. W. Lum, chief engineer, Washington, D. C., are considering construction of reinforced concrete or steel viaduct at grade crossing on East Trade street, costing about \$65,000. T. S. Franklin, Mayor; Joseph Firth, City Engineer.

Meridian, Miss.—Contract will be let April 6 for construction of wooden or steel bridge across Sowashee creek; W. R. Pistole, clerk. (See "Machinery Wanted.")

Tampa, Fla.—Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, Va., has, it is reported, notified contractors to resume work of building approaches for proposed \$150,000 steel bridge to extend from Nebraska avenue to Grassy Island, Tampa.

Washington, D. C.—Bill has been introduced in the House of Representatives for construction of bridge across Eastern branch of Potomac river at foot of Half street to Gleaboro Point; cost from \$500,000 to \$600,000; Henry B. F. Macfarland, Henry L. West and Jay J. Morrow, District Commissioners.

CANNING AND PACKING PLANTS

Atlanta, Ga.—C. D. Cabaniss and W. O. Washburn, 175 Augusta avenue, Copenhill, Atlanta, contemplate establishing peach cannery; capacity 150,000 cans per season; machinery not purchased. (See "Machinery Wanted.")

Denison, Texas—Cannery.—Grayson County Fruit & Truck Growers' Co-operative Association is considering establishment of canning plant.

Jackson, Tenn.—Jackson Canning Co., 100 Poplar street, incorporated with \$15,000 capital stock by J. D. Hopper and others, has completed factory and installed machinery;

cost of building and equipment, \$9500; will can vegetables and fruits; daily capacity 20,000 cans; manager, F. M. Faulkland.

Leeds, Ala.—Establishment of cannery factory is projected; J. B. Elliott can give information.

Marshallville, Ga.—J. L. Jones contemplates establishment of cannery factory. (See "Machinery Wanted.")

Winnsboro, Texas.—Ogburn Canning Co. (present address, Lindale, Texas) will erect cannery factory recently mentioned; two-story building, 50x100 feet; also shed 50x100 feet; cost of building \$2000; cost of machinery \$9000; will can fruits and vegetables; daily capacity 30,000 cans; J. S. Ogburn, manager. (See "Machinery Wanted.")

CLAYWORKING PLANTS

Concord, N. C.—R. A. Brown's Sons are installing machine capable of producing 75,000 brick per day, increasing total output of plant to 150,000 brick daily.

Dunn, N. C.—Cumberland Brick Co. incorporated with \$50,000 capital stock by Jenkin David, V. L. Stevens, E. F. Young and A. F. Young.

Memphis, Tenn.—South Memphis Brick Co. increased capital stock from \$100,000 to \$150,000.

COAL MINES AND COKE OVENS

Bluefield, W. Va.—Domestic Coal Co., E. Bond, president, will consider increasing capital stock.

Dailey, Ala.—Rodan Coal Co. (previously reported organized, etc.) has awarded contracts for considerably machinery for its mines; equipment to include 900-horse-power boilers, Corliss engine, hoisting engines, 10-ton traveling crane, etc. Ultimate capacity of mines will be 3000 tons daily, which will call for additional equipment. Company's offices are at Birmingham, Ala. Birmingham Engineering Co., Brown-Marx Building, Birmingham, is engineer in charge and placed above contracts.

Jesup, Ga.—Goose Creek Railroad & Power Manufacturing Co. has not decided on date of opening bids for erection of cottonseed-oil mill recently described; building to have steam heat and electric lighting plans by D. G. Zeigler & Co., Columbia, S. C., and Atlanta, Ga.

Louisville, Ky.—Louisville Cotton Oil Co. has purchased 11 acres of land at \$10,000 and will establish cottonseed-oil refinery. Plans for buildings will probably soon be prepared; J. J. Caferty, president.

Okmulgee, Okla.—Webster Refining Co. incorporated with \$150,000 capital stock by O. A. Lambert and N. D. Boyd, both of Okmulgee, and C. D. Webster, Humboldt, Kan.

Port Arthur, Texas.—John W. Gates has arranged, it is reported, for the construction of a large cottonseed-oil mill and fertilizer factory; New York office in Trinity Building at 111 Broadway.

Troy, Ala.—Harris Gin Co. will rebuild cotton gin recently reported burned; will install seed crusher, oil press and four gins. (See "Machinery Wanted.")

ELECTRIC-LIGHT AND POWER PLANTS

Nashville, Tenn.—Prison Commission, M. M. Marshall, chairman, has been instructed to proceed with development of Herbert coal domain. Work will begin about April 1 under direction of E. T. Reynolds, State Engineer. (Mentioned in December.)

Tyrone, W. Va.—Dr. C. R. Peck, Clarksburg, W. Va., and McEville W. Peck, Philippi, W. Va., have purchased coal lands near Tyrone and will soon begin developments.

Webster Springs, W. Va.—Webster Springs Land & Stock Co. has purchased 4500 acres of coal and timber land along Elk river in West Virginia at \$160,000. It is reported that company will probably not operate the property, but sell coal on royalty plan; Charles C. Wentz, Washington, Pa., president; W. S. Lane, secretary, and James E. McFarland, treasurer, both of Greensburg, Pa.; offices in Washington Trust Building, Washington, Pa. (See "Lumber Manufacturing Plants.")

CONCRETE AND CEMENT PLANTS

El Paso, Texas.—Southwestern Portland Cement Co. (previously reported organized, etc.) is preparing to begin construction of proposed plant; Cement Engineering Co., Union Trust Building, Los Angeles, Cal., is engineer in charge; has drawing about completed and has purchased a part of the equipment; will install two 8x150-foot rotary kilns and will have average daily capacity of 1500 barrels of Portland cement; will use fuller mills throughout plant on coal, raw material and clinker; all machinery to be driven by separate motors direct connected by flexible couplings; will also use series of blending bins to regulate mixture of material to within one-tenth of 1 per cent.; all buildings will be mostly of reinforced concrete construction. Carl Leonard of Los Angeles, Cal., is president.

Childress, Texas.—Childress Ice & Light Co. incorporated with \$40,000 capital stock by R. H. Norris, Thomas Kilpatrick, Ed. E. Woods and others.

Elberton, Ga.—Broad River Power Co. will be chartered to establish water-power electrical plant on Broad river; plans to construct dam and build electric-power plant for transmitting electricity to lighting and manufacturing plants. Among those interested are A. S. J. Stovall, A. S. Oliver, E. B. Tate, I. G. Swift and others of Elberton. The Manufacturers' Record is advised that the Solomon-Norcross Company, Candler Build-

ing, Atlanta, Ga., has made surveys for the development and will be engineer in charge.

Farmington, Mo.—City is having plans prepared for electric-light plant estimated to cost \$25,000. Plans will probably be completed and submitted for bids about April 1; Thomas B. Carter, engineer in charge.

Jackson, Ky.—Jackson Electric & Hydraulic Manufacturing Co. incorporated with \$20,000 capital stock by L. P. Gunn, A. S. Moore and J. W. Norwood, all of Lexington, Ky. Company is a reorganization of Jackson Electric Light & Power Co., and will resume operation of plant, in addition to operating water-works and manufacturing ice. (See T. Head, Lexington, Ky., and others recently mentioned as having taken over Jackson electric-light plant.)

Macon, Ga.—Central Georgia Power Co., W. J. Massie, president, Grand Building, Macon, has completed arrangements with A. B. Leach & Co., 149 Broadway, New York, whereby that firm will finance the power company, including bonds for \$16,000,000 and stock for \$20,000,000. This will insure awarding of contracts soon for the construction of the Central Georgia Power Co.'s proposed water-power electric plant, complete details of which were reported in the Manufacturers' Record of February 6. Company's chief engineer, Charles F. Howe, Grand Building, Macon, telegraphs the Manufacturers' Record that his company's ultimate development will be for 125,000 to 150,000 horse-power on Oconee, Ocmulgee and Flint rivers, the electricity to be transmitted over an extensive territory for manufacturing and lighting. First development to be on Ocmulgee river near Jackson and 18,000 horse-power to be obtained. It has been planned by Lockwood, Greene & Co. of Boston, Mass., and Greenville, S. C., the cost of dam, power-house, water-power and electrical machinery, transmission lines, steel towers, etc., being estimated at \$1,850,000. Date for awarding contracts not determined.

McMinnville, Tenn.—John Henderson is interested in establishment of water-power-electrical plant at Caney Fork falls, near McMinnville.

Memphis, Tenn.—Memphis Ice & Electric Co., J. M. Elliott, president, recently noted to install electric-light plant, will erect frame building with galvanized siding at cost of \$4500; will install generator of 100-kilowatt capacity; engineer in charge, W. H. Walsh.

Nashville, Tenn.—Consolidated Electric Co. incorporated with \$15,000 capital stock by James A. Singleton, George A. Wood, A. G. Rutherford and others.

Pensacola, Fla.—Pensacola Electric Co. has contract for city lighting in residence district for five years; local manager, John W. Leadley.

Pine Bluff, Ark.—Pine Bluff Light & Water Co., F. G. Bridges, president, awarded contract to Selden-Breck Construction Co., St. Louis, Mo., for erection of power plant. (Recently mentioned.)

Roanoke, Va.—W. E. Thomas, City Clerk, will open bids March 31 for lighting streets, alleys and public parks of city with 250 or more electric arc lamps for five years from November 1, 1908; also for supplying electric current for lighting 250 or more arc lamps; constructing and equipping superstructure or overhead lighting plant or system; W. B. Bates, City Engineer.

Stillwater, Okla.—City will vote April 7 on issuance of \$7000 of bonds for extension of electric-light plant. Address The Mayor.

Taylor, Texas.—City Light & Power Co. (mentioned last week) will erect 50x70-foot building, to cost about \$4000. (See "Machinery Wanted.")

Waurika, Okla.—City has granted franchise to M. Griffin O'Neil of Dallas, Texas, for installation of proposed electric-light plant to cost \$10,000; will begin construction as soon as materials and machinery can be gathered at site.

FLOUR, GRIST AND MEAL MILLS

Talcott, W. Va.—Talcott Hardware & Feed Co., reported incorporated in January (under "Miscellaneous Enterprises"), will establish flour and feed mill; will erect two-story building, 120x50 feet; architect not engaged; president, J. W. Ford; vice-president, J. F. Leftwich; secretary-treasurer, J. W. Gillispie; manager, G. F. Scott.

White Bluff, Tenn.—Albert Slater has completed planing and grist mill mentioned

in February; will produce bolted meal. (See "Lumber Manufacturing Plants.")

Willowton, W. Va.—Meal and Feed.—L. H. Davis and P. Vance will establish meal and feed mill.

FOUNDRY AND MACHINE PLANTS

Atlanta, Ga.—Mechanical Specialties, etc.—American Specialty Manufacturing Co., corner Simpson and Marietta streets, recently reported incorporated, will manufacture mechanical specialties and special machinery; now operating in building leased for one year; machinery installed; contemplates erection of building after lease expires; C. C. Needham, secretary and treasurer; R. W. Munk, general manager. (See "Machinery Wanted.")

Brookhaven, Miss.—Engines, etc.—Brookhaven Foundry & Machine Co. has completed proposed new plant; building of brick, 60x140 feet, divided into machine shop, 60x30 feet, with cement floor, equipped for handling all locomotive and repair work, and foundry, 60x60 feet, equipped with cupola for melting iron with capacity of 7000 pounds per hour. Plant is capable of handling single castings of 10,000 pounds. Company is planning to soon install brass furnace, and, in addition to doing custom work, to manufacture steam engines of stationary type of 20, 30 and 50 horse-power.

Charlottesville, Va.—Adding Machines.—Simplex Adder Co. incorporated with \$30,000 capital stock; C. H. Walker, president; T. P. Peyton, vice-president; A. V. Conway, secretary-treasurer.

Gadsden, Ala.—Plumbers' Supplies.—Campbell Manufacturing Co. awarded contract to Litsen & Amberson of Gadsden for erection of building 100x250 feet, to be equipped for manufacturing pipefittings and plumbing supplies. Company will also erect buildings 50x80 feet, 40x60 feet and 20x40 feet, all constructed of wood and concrete; cost of structures, \$7500; machinery, \$12,500. Contract for cupola has been awarded; Otto Agricola, president. (Recently mentioned.)

Greensboro, N. C.—Boilers and Machines.—Greensboro Boiler & Machine Co. has increased capital stock from \$50,000 to \$200,000.

Guthrie, Okla.—Steam Pumps.—Liggett Steam Pump Co. incorporated with \$60,000 capital stock by G. V. Pattison of Guthrie, H. W. Klare and C. R. Klare, Chicago, Ill.

Kansas City, Mo.—Steel Tanks, etc.—H. W. Harry Manufacturing Co., recently reported incorporated, will continue manufacture of steel tanks and corrugated road culverts; president, H. W. Harry; vice-president, S. J. Thompson; secretary-treasurer, F. M. Cockrell; address, 2928 to 2934 Fairmount avenue.

Little Rock, Ark.—Cotton Gins.—Thomas-Fordyce Manufacturing Co. has increased capital stock from \$250,000 to \$350,000.

Macon, Ga.—Stoves.—Rockmart Stove & Foundry Co., Rockmart, Ga., contemplates establishment of plant in Macon.

Martinsburg, W. Va.—Blacksmith Shop.—J. E. Wolford will erect blacksmith shop, 27x22 feet.

Nashville, Tenn.—Iron Foundry.—Nashville Foundry Co., recently reported incorporated with \$10,000 capital stock, will erect foundry building; brick; 96x130 feet; cost \$2500; J. W. Satterwhite, president; O. H. Looney, secretary-treasurer; W. R. Wilbrite, general manager.

Oklahoma City, Okla.—Implements.—Oklahoma Implement Manufacturing Co., recently reported incorporated with \$150,000 capital stock by D. W. Lackey and others, will erect foundry building to be equipped for manufacturing implements, investing about \$35,000. Plans are being prepared.

Rome, Ga.—Slot Machines.—Vending Showcase Co., organized with \$100,000 capital stock, has begun installation of machinery and will soon commence operation of proposed plant for manufacturing cigar slot machines; daily capacity 40 machines. Alfred Fothergill will be in charge.

San Antonio, Texas—Structural Steel.—Southern Structural Steel Co. incorporated with \$100,000 capital stock to manufacture structural steel and iron by B. F. Youngblood, G. L. Youngblood and W. M. Cornett.

St. Louis, Mo.—Tin-can Filling Machinery, etc.—Small-Townsend Manufacturing Co., 6761 Vernon avenue, recently noted incorporated, will establish plant to manufacture general machinery and machines for filling tin cans or cartons; will erect building 40x85 feet, of concrete and iron, at cost of \$1000; architects, Handley & Page, St. Louis, Mo.; cost of machinery \$1200; president, C. P. Small; secretary, H. S. Townsend; treasurer, H. E. Townsend.

Watonga, Okla.—Cotton Harvester.—Ames Cotton Harvester Co. incorporated with \$50,-

000 capital stock by Alfred B. Amos, Henry Schivender, E. Schivender and U. Ames.

Waxahachie, Texas—Machinery, etc.—Waxahachie Foundry & Machine Co., 414 South Roger street, recently reported incorporated, will erect building and install machinery; cost of building \$1500; cost of machinery \$2500; will repair gins, oil mills, etc., and all high-class machine and boiler work; president, J. T. Andrews; secretary-treasurer, E. L. Pierson; superintendent, E. W. Rice.

Winchester, Ky.—Castings.—Eagle Casting & Foundry Co., F. G. Cornell, general manager, will enlarge plant by erection of additional building.

Williamsport, Md.—Blacksmith Shop.—Victor Cushing & Sons will erect blacksmith shop.

REPLIES TO LETTERS.

A large manufacturing concern, in a letter to the MANUFACTURERS' RECORD, makes the following suggestion well worthy of careful consideration by all whose names appear in our "Construction Department" and "Machinery Wanted" columns. The letter is as follows:

"We notice you call the attention of parties writing in answer to 'Business Opportunities' to the necessity of writing special letters and making them apply directly to the subject inquired about. This is a thoroughly practical idea and one that we have always carried out. On the other hand, we would like to suggest to you the propriety of calling the attention of parties who give you these items to the necessity of at least the courtesy of acknowledging receipt of letters and prints that are sent to them from manufacturers or suppliers. The presumption is that parties wanting machinery or contemplating the building or installing of same give you the items for the purpose of having manufacturers or suppliers write them, sending them prints, etc. When a manufacturer does that, taking his time, expense and expenditure of literature, the action is a mutual one, and it is only courtesy at least that the party receiving them should acknowledge its receipt, whether they are interested in the machinery offered or not. We would suggest that you put a standing notice at the head of that department, just as you have suggested that we should write personally to the parties, to the effect that they should take pains to see that every letter is acknowledged, even if it is nothing but a postal card."

GAS AND OIL DEVELOPMENTS

Ashland, Ky.—Elk Oil & Gas Co. incorporated with \$500,000 capital stock to develop oil wells in Morgan county; R. H. Vansant, president; J. C. C. Mayo, vice-president; Charles Russell, secretary-treasurer.

Beaumont, Texas.—Interstate Oil Co., recently reported incorporated, will establish oil-drilling plant; no machinery needed; president, Charles D. Hill; secretary-treasurer, A. L. Downer.

Clendenin, W. Va.—Bomont Oil Co. incorporated with \$25,000 capital stock by C. F. and J. A. Osborne, both of Clendenin; J. F. Callison, Charleston, W. Va.; E. G. Pierson, Fayetteville, W. Va., and others.

Jackson, Texas.—Capitalists will, it is reported, develop oil and gas lands in Jack county. Oliver Loving can probably give information.

Jennings, La.—National Oil Co. incorporated with \$20,000 capital stock; W. O. Todd, president; W. E. Jackson, vice-president; Fred E. Jones, secretary.

Kinta, Okla.—Kinta Oil & Gas Co. incorporated with \$10,000 capital stock by R. B. Casseday, S. S. Blitz, J. C. Fenton and others, all of Louisville, Ky.

Monroe, La.—W. W. Griffey is promoting organization of Monroe Oil & Development Co. with \$100,000 capital stock.

Muskogee, Okla.—Bryan Oil Co. incorporated with \$10,000 capital stock by A. B. Morrison, A. T. Wiesner, H. C. Krouse and others.

Muskogee, Okla.—Elmo Oil Co. incorporated with \$10,000 capital stock by J. S. Wick, J. L. Wiesner, H. C. Krouse and others.

Muskogee, Okla.—Emery Oil Co. incorporated with \$10,000 capital stock by A. T. Wiesner, E. B. Morrison, H. C. Krouse and others.

Muskogee, Okla.—Douglas Oil Co. incorporated with \$10,000 capital stock by C. E. Douglas, F. E. Storm and W. C. Newman.

New Orleans, La.—New Orleans-Anse-la-Butte Oil & Mineral Co. incorporated with \$50,000 capital stock by Paul LeDanois, Dr. Louis Fourgeaud, Alber P. Sanchez and others.

Okmulgee, Okla.—Sater Oil & Gas Co. incorporated with \$25,000 capital stock by A. A. Lambert of Okmulgee, Harry Ross and Andrew Denson, Independence, Kan.

Okmulgee, Okla.—Federal Gas & Oil Co. incorporated with \$10,000 capital stock by E. E. Andrews, D. A. Skillen, W. S. Roll and others.

Okmulgee, Okla.—Ellen Oil Co. incorporated with \$10,000 capital stock by W. S. Turman, Bessie Turman and J. J. Davner.

Spindletop (not a postoffice), Texas.—Aaron Oil Co., recently reported incorporated by S. W. Pipkin and others, Beaumont, Texas, has not yet completed plans or elected officers; Randal Silverman, Beaumont, is engineer in charge; address, Beaumont, Texas.

Texarkana, Texas.—Charles G. Dawes, president of Central Trust Co. of Illinois, 152 Monroe street, Chicago, Ill.; John A. Markley, also of Chicago, and associates have awarded contract for piping for their proposed pipe line to convey oil from Texarkana to Shreveport, La.; contract awarded to South Chester Tube Co. of Chester, Pa., and calls for 50 miles of eight-inch pipe; price reported as \$115,540, exclusive of fittings, laying and transportation.

Tulsa, Okla.—Galena Oil Co. incorporated with \$20,000 capital stock by B. F. Rice, T. D. Lyons and T. Mangus.

Vinita, Okla.—Woodley Oil & Gas Co. incorporated with \$25,000 capital stock by E. N. Radcliff, Charles A. Dodson, W. R. Atwood and others.

ICE AND COLD-STORAGE PLANTS

Altus, Okla.—J. H. Whallon, Salisbury, Mo., will establish ice plant at Altus.

Childress, Texas.—Childress Ice & Light Co. incorporated with \$40,000 capital stock by R. H. Norris, Thomas Kilpatrick, Ed E. Woods and others.

Coweta, Okla.—E. S. Marsten and N. B. Griffin will install ice and cold-storage plant.

Dawson, Ga.—Terrell County Gin Co. will establish ice factory and cotton ginnery; manager, A. J. Carver.

Greensboro, N. C.—Greensboro Manufacturing & Coal Co. will erect building to be equipped with \$35,000 ice-making plant.

Jackson, Ky.—Jackson Electric & Hydraulic Manufacturing Co., incorporated with \$20,000 capital stock by L. P. Gunn, Lexington, Ky., and others, will establish ice plant. (See "Electric Light and Power Plants.")

Lynchburg, Va.—E. C. Ivey and associates will establish ice and cold-storage plant, expending about \$40,000. Ice factory will be 127x67 feet; brick; gravel roof; capacity 20 tons daily trackage facilities; cold-storage plant will be 60x48 feet; Jones & Adams, Lynchburg, contractors; Lewis & Burnham, National Bank Building, Lynchburg, architects.

Mexia, Texas.—Mexia Ice & Refrigerator Co., recently reported incorporated, will establish 50-ton ice plant; will erect brick building 58x150 feet; cost of building \$7000; cost of machinery, \$35,000; N. B. Robinson, treasurer and manager.

Nashville, Ark.—Nashville Ice & Coal Co. awarded contract to E. A. Williams for erection of ice-plant building 75x100 feet.

Ridgedale, Tenn.—D. F. Miller will establish ice plant with daily capacity of 15 tons.

Springfield, Mo.—Springfield Ice & Refrigerating Co. will double storage capacity of plant by erection of additional building; two stories; brick; capacity 30,000 barrels; duplicate of present building; cost \$30,000.

St. Charles, Mo.—Clover Leaf Sanitary Dairy & Ice Cream Co. will install four-ton refrigerating plant. John Hague, St. Louis, Mo., is preparing plans and specifications and will supervise erection.

Washington, D. C.—Washington Market Co., Pennsylvania avenue, corner 7th street N. W., is considering establishment of ice and cold-storage plant, and proposes to lay a conduit and pipe to pump water from Potowmack river for use in ice manufacture.

Wilmington, N. C.—Citizens' Ice & Fuel Co. incorporated with \$100,000 capital stock by H. L. Vollers, T. H. Wright, B. C. Merritt and others to establish ice plant with daily capacity of 90 tons, and later furnish coal and fuel. (Recently mentioned.)

LUMBER-MANUFACTURING PLANTS

Chubb, Fla.—Lake Alfred Lumber Co. incorporated with \$50,000 capital stock; John

M. Sykes, president; M. C. Flower, vice-president; H. W. Long, secretary; C. W. Flower, general manager and treasurer.

Clarks, La.—Louisiana Central Lumber Co. will reconstruct drykilns, sheds, etc., recently reported burned; cost of drykilns to be erected, \$30,000; plant to be completed in about six weeks.

Durham, N. C.—North Carolina Lumber Co. incorporated with \$100,000 capital stock by H. P. Clements, N. L. Thompson, Weston H., C. D. and P. I. Edwards.

Hattiesburg, Miss.—J. J. Newman Lumber Co. will, it is reported, rebuild sawmill recently burned at a loss of about \$300,000; Ferdinand Peck of Scranton, Pa., is president.

Helena, Ark.—W. H. Clem will establish lumber and planing mill, expending about \$15,000.

Holley, Fla.—Ashburn Lumber Co.'s plant, recently noted acquired, is located at Holley; president, F. J. Ansley; vice-president, J. F. Spivey; secretary-treasurer, Park Harper; daily capacity plant 25,000 feet lumber; no machinery needed. (Recent item under "Penacola, Fla.")

Johnson City, Tenn.—George L. Carter of Johnson City has, it is reported, engaged A. L. Baudard, Bristol, Va.-Tenn., to erect \$100,000 mill at Johnson City.

Lebanon, Tenn.—Lee Clark, Livingston, Tenn., will establish planing mill; has purchased machinery of Lebanon Planing Mill & Lumber Co.

McRae, Ga.—Telfair Lumber Co. incorporated with \$100,000 capital stock by Frank R. Mann, Jacksonville, Ga.; Thomas, Roscoe and Thomas B. Crary, Hancock, N. Y.; W. E. Sprague, Roscoe, N. Y., and J. C. Young, Liberty, N. Y.

Onalaska, Texas.—Carlisle Lumber Co. will build sawmill with capacity of about 200,000 feet; construction work has probably begun. Company will also change its old plant from circular to band-saw mill and make other improvements.

Opelousas, La.—Riggs Lumber Co. will, it is reported, establish sawmill.

Perryville, Ark.—J. T. Smith will rebuild sawmill recently reported burned; small plant. (See "Machinery Wanted.")

Pine Bluff, Ark.—Moary Timber Co., J. D. Harnett, president, contemplates establishing during next six months sawmill of 35,000 to 40,000 feet capacity for cutting gum, ash and oak. Perkins Manufacturing Co. of Pine Bluff will furnish machinery. Company controls about 30,000 acres of timber land in vicinity of Pine Bluff. (See "Woodworking Plants.")

St. Louis, Mo.—Western Planing Mill Co. incorporated with \$5000 capital stock by J. H. Cassidy, Anthony A. Wehlinger and John Harnansky.

Tenaha, Texas.—Tenaha Lumber Co. incorporated with \$15,000 capital stock by Luke Mobley, Dave Dubose, Henry Baldwin and Alvin Baldwin.

Webster Springs, W. Va.—Webster Springs Land & Stock Co., Charles C. Wentz, Washington, Pa., president, has purchased 4500 acres of timber and coal land along Elk river in West Virginia, estimated to contain about 30,000,000 feet of oak and poplar timber. Reports state that company will not cut the timber but dispose of it on the stump; offices in Washington Trust Building, Washington, Pa. (See "Coal Mines and Coke Ovens.")

White Bluffs, Tenn.—Albert Slater has completed planing and grist mill mentioned in February; building is 40x90 feet; cost \$400; cost of machinery \$2500; will make siding, flooring, ceiling and molding; daily capacity 10,000 feet.

Wilmington, N. C.—Hilton Lumber Co. will improve plant.

MINING

Buchanan, Va.—Limestone.—Virginia Iron, Coal & Coke Co., main office Bristol, Va.-Tenn., will install new machinery, including revolving screen and equipment for stone washing; machinery purchased; local superintendent, B. M. Paine.

Cartersville, Ga.—Iron.—Virginia Iron, Coal & Coke Co., Henry K. McIlroy, president, 40 Wall street, New York, has purchased at \$80,000 options on property in Bartow county containing iron deposits, and will soon undertake development; also purchased for development 1200 acres of iron lands in southern portion of Bartow county. Offices at Bristol, Va.-Tenn.; John B. Newton, vice-president and general manager in charge.

Chattanooga, Tenn.—Sand.—J. F. Dale Sand Co. incorporated by J. F. Dale, S. W. C. S. and F. B. Thompson and John Noll.

Guntersville, Ala.—Umber.—Guntersville

Umbre & Paint Co. has began development of umber deposits for paint manufacturing. (See "Miscellaneous Manufacturing Plants.")

Hot Springs, Ark.—Fuller's Earth.—Fuller's Earth Bath Co. incorporated with \$50,000 capital stock by J. F. Howard, H. E. Martin, C. A. Gunter and others to mine and manufacture fuller's earth and operate fuller's earth baths.

Macon, Ga.—Bauxite.—Republic Mining Co. Winthrop C. Neilson, Philadelphia, Pa., president, has purchased bauxite-ore lands near Macon and will, it is reported, undertake development.

McAlester, Okla.—Lead, Zinc, etc.—International Lead & Paint Co. incorporated with \$50,000 capital stock by E. N. Taylor, H. E. Swain and William E. Busby to mine lead, zinc, etc., and manufacture paints.

Millville, W. Va.—Stone and Lime.—Harpers Ferry Stone & Lime Co. incorporated with \$50,000 capital stock by William M. Rees, D. A. Rees, James D. Callery, F. A. Dohrman and J. H. Blackmore, all of Pittsburgh, Pa.

St. Louis, Mo.—Limestone.—Rush Tower Limestone Co. incorporated with \$50,000 capital stock by Frank Mize, Charles F. Busch, both of St. Louis, and Arthur S. Mittelberg, Webster Groves, Mo. Company has purchased 200 acres of land on Mississippi river, 30 miles from St. Louis, at \$150,000, containing limestone deposits, and will erect plant.

Sulphur, Okla.—Lead and Silver.—New Blue Domingo Lead and Silver Mining Co. incorporated with \$100,000 capital stock by O. R. Faust, M. Pelly and Wayne Young.

Sycamore, Ala.—Marble.—Alabama Marble Quarries, incorporated with \$300,000 capital stock, has elected Dr. J. L. Gaston, Montgomery, Ala., president; H. L. McElderry, Talladega, Ala., vice-president; Louis B. Farley, treasurer; T. J. Scott, secretary; J. Taylor Scott, general manager, each of Montgomery, Ala. Company will develop marble quarries near Sycamore.

MISCELLANEOUS CONSTRUCTION WORK

Baltimore, Md.—Vault.—City will erect vault in office of Board of Park Commissioners at Madison-avenue entrance, Druid Hill Park; contract will be let April 1; Edward D. Preston, Building Inspector. (See: "Machinery Wanted.")

Baltimore, Md.—Concrete and Steel Piers.—Baltimore & Ohio Railroad Co. will adopt concrete and steel construction for rebuilding its Locust Point pier, which collapsed while in course of construction some months ago; will probably expend \$750,000. D. D. Carothers, offices at Charles and Baltimore streets, chief engineer, states that work will not be commenced at present, but is indefinitely postponed.

Baltimore, Md.—Sanford & Brooks Company, Commerce and Water streets, Baltimore, were lowest bidders at \$1,084,499.35 and will probably receive contract for construction of three reinforced concrete and steel piers—pier No. 4, 978x200 feet; pier No. 5, 1300x200 feet, and pier No. 6, 1466x140 feet. Work will include approximately 450 steel cylinders, 3x10 feet, filled with concrete; 278,000 linear feet timber or reinforced-concrete sheet piling, 25,000 linear feet reinforced-concrete piling, reinforcement for concrete curbing around piers, 1000 tons steel, 1,000,000 cubic yards excavating and dredging and removal of 85 various kinds buildings now on ground. Work will be done under supervision of Oscar F. Lackey, Harbor Engineer, City Hall.

MISCELLANEOUS ENTERPRISES

Abingdon, Va.—Hardware.—Vance Supply Co. incorporated with \$10,000 capital stock; A. J. Huff, president; D. G. Ritchie, vice-president; Q. A. Eller, secretary.

Alexandria, Va.—Electrical Supplies.—Pettet Electrical Signal Co. incorporated with \$10,000 capital stock; F. M. Hill, president; Zoro Hill, secretary; G. W. Pettet, manager.

Altus, Okla.—Townsite.—Altus Townsite Co. incorporated with \$40,000 capital stock by J. E. Adkins, R. E. Dunlap, J. C. McClay and others.

Augusta, Ga.—Brewery.—Augusta Brewing Co. will install 50-ton freezing and distilling system.

Baltimore, Md.—Land Improvement.—Frank Realty & Investment Co. incorporated with \$40,000 capital stock by Albert L. Frank, 2114 Druid Hill avenue; Isaac Constan, John J. Rivers and others.

Baltimore, Md.—Land Improvement.—Fidelity Real Estate Co. incorporated by Clarence H. Hurlock, Gunther Building; Spencer M. Clark, George W. Williams and others.

Baltimore, Md.—Contracting.—Miller Contracting Co. incorporated by Samuel B. Miller, 20 Montebello avenue; William Grosup, Jr., William R. Barnes and others.

Birmingham, Ala.—Cleaning.—American Dry Cleaning Co. incorporated with \$5000 capital stock; I. S. Moore, president; M. Mackstine, secretary.

Coweta, Okla.—Hardware.—Coweta Hardware Co. incorporated with \$5000 capital stock by R. W. Simpkin, C. E. Trumbo and C. K. Leslie.

Cullom Springs (not a postoffice), Ala.—Pleasure Resort.—John T. Cochrane and William G. Cochrane, president and vice-president Tombigbee Valley Railroad Co., Mobile, Ala., have purchased Cullom Springs property; improvements will be made to hotel and cottages; purchasers contemplate survey and building of highway from nearest railway station on Tombigbee Valley line to Cullom. (See "Hotels.")

East Radford, Va.—Steam Laundry.—T. L. Pickle, Box 442, contemplates establishing steam laundry. (See "Machinery Wanted.")

Edgerley, La.—Rice Cultivation.—Horace G. Eddy and D. W. Gunn, Lake Charles, La., have purchased about 1000 acres of land between Edgerley and DeQuincy, La., and will plant about 300 acres in rice. Irrigating canals are being constructed. S. O. Scogins is in charge of well drilling.

Fayetteville, W. Va.—Publishing.—Fayette Journal Co. incorporated with \$25,000 capital stock by C. W. Dillon, C. F. Young, C. A. Goddard and others.

Galveston, Texas—Abattoir.—Union Slaughtering Co. incorporated with \$15,000 capital stock by W. J. Duffey of Galveston, E. W. Gruendler and A. L. Batjer, both of Houston, Texas, to erect proposed union slaughterhouse.

Greensboro, N. C.—Publishing.—Industrial Publishing Co. has increased capital stock from \$50,000 to \$100,000; Thomas S. Rollins, president.

Hampton, Va.—Land Improvement.—F. & E. Corporation incorporated with \$10,000 capital stock; David Frankel, president; C. S. Kaufman, vice-president; E. Eiseman, secretary.

Jacksonville, Fla.—Roofing and Paving.—Campbell Roofing & Paving Co. incorporated with \$25,000 capital stock; D. A. Campbell, president; C. M. Stone, secretary-treasurer.

Joplin, Mo.—Publishing.—News-Herald Publishing Co. recently reported incorporated, has elected P. E. Burton president and H. H. Nutchell secretary, treasurer and manager; will publish newspaper.

Knoxville, Tenn.—Street Cleaning.—Knoxville Street Cleaning & Sprinkling Co. incorporated with \$5000 by R. A. Lovelace, Howard Barnes, B. C. Lane and others.

Louisville, Ky.—Amusements.—Boston Amusement Co. incorporated with \$10,000 capital stock by Herman V. Cohen, Leo Schumann, W. A. Croder and others.

Memphis, Tenn.—Floral Cultivation.—East End Floral Co. incorporated with \$10,000 capital stock by Charles Hamner, C. C. Brown, Edwin G. Bell and others.

Miami, Fla.—Townsite.—Edward H. Crane and E. A. Perry will establish townsite on Grassy Key Island; work will soon begin on laying out and grading streets and avenues.

New Orleans, La.—Well Contracting.—Brown Deep Well Co., Chas. A. Corcoran, president, recently reported incorporated, will install machinery for digging wells of all kinds; will also furnish well supplies.

New Orleans, La.—Machinery and Supplies.—Well-Gutmann Supply Co. incorporated with \$50,000 capital stock to deal in sugar-mill, sawmill, oil-mill and plantation machinery and supplies, by Michael G. Well, 451 Howard avenue (president), Jake H. Gutman and H. W. Newman.

Norfolk, Va.—Musical Instruments.—American Piano Player Co. incorporated with \$25,000 capital stock; A. N. Cruser, president; G. S. Williams, vice-president; T. L. Vaughan, secretary.

Norfolk, Va.—Plumbing.—Wilson & Co. incorporated with \$10,000 capital stock; R. L. Scott, Smithfield, Va., president; C. E. Brown of Norfolk, secretary.

Oakland, W. Va.—Land Improvement.—Oakland Land Co. incorporated with \$10,000 capital stock by J. A. Holley, Samuel Stephenson, J. E. Thayer and others, all of Charles-ton, W. Va.

Ocala, Fla.—Plumbing and Electrical.—Ocala Plumbing & Electric Co. incorporated with \$5000 capital stock; David S. Woodrow, president; George H. Ford, secretary-treasurer, W. A. Beavers.

Old Spring Hill, Ala.—Plantation.—Skinner Plantation Co. incorporated with capital

stock of \$25,000 by A. B. Skinner, E. S. Carter, R. P. Allen, Jr., and others.

Pensacola, Fla.—Steam Laundry.—Empire Laundry Co. incorporated with \$12,000 capital stock; W. C. Dewberry, president; W. C. Mackay, secretary-treasurer.

Rogers, Ark.—Hardware.—Rogers Hardware Co. incorporated with \$100,000 capital stock by J. W. Walker, Calvin Walker, T. J. Walker and J. W. Kimmons.

Salem, Va.—Steam Laundry.—N. B. Gray, Roanoke, Va., and C. W. Metcalf, Pineville, Ky., will establish steam laundry at Salem.

Southside, W. Va.—Ferry.—J. Harvey Leighton is interested in establishment of ferry-boat service between Ohio and West Virginia.

St. Louis, Mo.—Publishing.—American Aeronaut Publishing Co. incorporated with \$25,000 capital stock by A. A. Chouteau, Jr., L. L. Prince, Jr., T. R. McMechen and others.

Tampa, Fla.—Fuel.—Tampa Fuel Co. incorporated with \$10,000 capital stock; W. R. Fuller, president; V. M. Lanier, secretary-treasurer.

Tampa, Fla.—Printing Plant.—Walton Printing Co. incorporated with \$5000 capital stock; Douglass T. Eichelberger, president; A. O. Walton, treasurer.

Van Buren, Ark.—Plumbing and Lighting.—Van Buren Plumbing & Lighting Co. recently reported incorporated, has elected Jas. Morrell president, S. B. Clay vice-president and superintendent and Edw. G. Delange secretary and treasurer.

MISCELLANEOUS MANUFACTURING PLANTS

Baltimore, Md.—Bottling Works.—Christian Moerlein Brewing Co., southeast corner Howard and Cross streets, has leased property at southeast corner Howard and Cross streets and will make improvements, including erection of buildings for bottling and storage of malt.

Baltimore, Md.—Fly Screens, etc.—M. Solmson Fly Screen Co., Moses Solmson, proprietor, Bayard and Nanticoke streets, has incorporated with \$35,000 capital stock to continue manufacture of fly screens, screen doors, molding, etc., by M. Solmson, Robert M. Spedden, William T. Davis and others.

Baltimore, Md.—Manufacturing.—Clark-Fefel Manufacturing Co. incorporated with \$250,000 capital stock by Allan Cleaveland, 222 St. Paul street, and others.

Baltimore, Md.—Stationery Manufacturing and Printing.—The Falconer Company, printer, stationer, lithographer and blank-book manufacturer, 5-7 North Gay street, has increased capital stock from \$30,000 to \$100,000.

Beaumont, Texas.—Paper Pulp.—W. D. Wing, Bangor, Maine, is interested, it is reported, in plans to establish plant at Beaumont for manufacturing paper pulp from rice straw.

Bedford, Va.—Tin-can Factory.—W. A. Falconer, C. W. Gillis and others contemplate establishment of tin-can factory.

Black Fox, Tenn.—Pigments for Paints.—Tennessee Refining Co. incorporated with \$100,000 capital stock by Walter E. Ragsdale, J. C. Gunter, Selden Samuel, R. S. Stewart and W. B. Swaney, all of Chattanooga, Tenn., for manufacturing pigments for silex and other minerals for paints, soaps, etc. Company controls mineral lands at Black Fox, where mines have been opened; storage house will be leased in Chattanooga.

Bluefield, W. Va.—Cigar Factory.—Edward Finch and Frank Hickle, both of Grafton, W. Va., will establish cigar factory at Bluefield.

Carlisle, Ky.—Gloves.—Carlisle Kentucky Glove Factory will probably be name of plant recently noted to be established by T. C. Collier; will manufacture men's canvas gloves; some machinery installed. Mr. Collier will be manager.

Carlisle, Ky.—Storm Curtains.—John Archdeacon and Willis Mathers will establish plant for manufacturing storm curtains.

Clarksville, Tenn.—Bottling.—Clarksville Beverage Co. incorporated with 5000 capital stock by W. H. Hughes, Floyd Estill, J. A. Walton and others.

Elkins, W. Va.—Bottling.—Valley Bottling Works, recently reported (under "Grafton, W. Va."), has purchased plant of Valley Bottling Works; no machinery needed; manager, Lee A. Forman; secretary and treasurer, C. N. Duley, general agent.

Norfolk, Va.—Hardware.—E. M. Rogers Manufacturing Co. incorporated with \$10,000 capital stock; E. M. Rogers, president; L. A. Gilbert, vice-president; W. J. Leckie, secretary.

Port Arthur, Texas.—Fertilizers.—John W. Gates has arranged, it is reported, for the construction of a fertilizer factory. (See "Cottonseed-oil Mills.") New York office in Trinity Building at 111 Broadway.

Port Arthur, Texas.—Paper.—John W. Gates has arranged, it is reported, for the establishment of a mill for manufacturing paper from cypress and gum wood pulp; \$1,000,000 to be invested; New York office in Trinity Building at 111 Broadway.

Punta Gorda, Fla.—Manufacturing.—De Soto Manufacturing Co. incorporated with \$40,000 capital stock; P. W. McAdow, president; John H. Farrington, secretary-treasurer.

Quincy, Fla.—Tobacco Factory.—North Rowe Leaf Tobacco Co. incorporated with \$15,000 capital stock; O. A. Rowe, president; C. H. North, secretary-treasurer.

Fort Worth, Texas—Glove Factory.—Board of Trade has secured location of factory for manufacturing woolen, silk and cotton gloves; reported \$30,000 will be invested for machinery, etc.

Gleason, Tenn.—Bottling Works.—Gleason Bottling Works, W. H. Williams, manager, will establish small bottling plant; capacity, about 50 cases daily; building erected.

Guntersville, Ala.—Paints.—Guntersville Umer & Paint Co. (H. C. Henderson, O. D. Street and H. L. Taylor) has completed installation of machinery for manufacturing paints; is developing umber deposit in this connection.

Houston, Texas—Signal Devices.—Weisenborn Signal Co. incorporated with \$10,000 capital stock to manufacture signal devices by John M. Spellman, J. W. Ragsdale and G. P. A. Weisenborn.

Little Rock, Ark.—Tents and Awnings.—Little Rock Tent & Awning Co., 209 Main street, recently reported incorporated, will manufacture tents, awnings, cotton-picking sacks, wagon covers, etc.; president, O. D. Tucker; vice-presidents, H. M. Tucker and V. L. Jackson; secretary-treasurer, S. L. White; will occupy rented building; contemplates erection of building in about a year.

Louisville, Ky.—Baking Powder.—Wright Home-Made Baking Powder Co. incorporated with \$25,000 capital stock by Jessie M. Wright, J. Walton Maxey and J. T. O'Neal, Jr.

Louisville, Ky.—Pants Factory.—Kuhn Pants Manufacturing Co., recently reported incorporated by A. J. Kuhn and others, has acquired and will operate plant already established.

Louisville, Ky.—Sliding Cap.—The Sliding Cap Co. incorporated by John B. Williamson, Alf W. Oldham and J. V. Reed.

Lynchburg, Va.—Overalls.—N. & W. Manufacturing Co., Ltd., 700 Salem street, recently incorporated, will establish factory with capacity of 75 dozen overalls daily.

McAlester, Okla.—Paint Factory.—International Lead & Paint Co., incorporated by E. N. Taylor and others, will manufacture paints. (See "Mining.")

Mobile, Ala.—Gas Works.—Mobile Gas Co. will expend \$60,000 in improvements to gas plant, including erection of building for main plant, cement retorts for purifying coal gas, installation of new machinery, etc.

Mobile, Ala.—Switches.—Automatic Switch Co., George J. Crossland, president, recently reported incorporated, has not completed plans; further information will be given later.

Monrovia (not a postoffice), Ala.—Sassafras-oil Distillery.—American Extract & Vinegar Co., Nashville, Tenn., will establish sassafras-oil distillery near Monrovia.

Nashville, Tenn.—Bottling Works.—Gerst Bottling Co. will be organized to establish beverage department in connection with Gerst Brewing Co.

Nashville, Tenn.—Snuff Factory.—American Snuff Co. (main offices, New York, N. Y.) will be organized, establish branch plant at Nashville.

New Orleans, La.—Skirt Factory.—The \$3 Skirt Co. incorporated with \$3000 capital stock by H. Flichtenberg, Emile Mandel and W. H. Gueringer.

New Orleans, La.—Cans and Packing Cases.—Republic Box Co., 315 Girod street, will operate factory recently noted to be established by Sea Gull Specialty Co., Baltimore, Md., for manufacture of tin and paper cans and wire-bound boxes. Buildings have been leased; daily capacity 300,000 cans and 6000 packing cases; Hooper Coyne, treasurer and manager; C. N. Duley, general agent.

Norfolk, Va.—Hardware.—E. M. Rogers Manufacturing Co. incorporated with \$10,000 capital stock; E. M. Rogers, president; L. A. Gilbert, vice-president; W. J. Leckie, secretary.

Port Arthur, Texas—Fertilizers.—John W. Gates has arranged, it is reported, for the construction of a fertilizer factory. (See "Cottonseed-oil Mills.") New York office in Trinity Building at 111 Broadway.

Port Arthur, Texas—Paper.—John W. Gates has arranged, it is reported, for the establishment of a mill for manufacturing paper from cypress and gum wood pulp; \$1,000,000 to be invested; New York office in Trinity Building at 111 Broadway.

Punta Gorda, Fla.—Manufacturing.—De Soto Manufacturing Co. incorporated with \$40,000 capital stock; P. W. McAdow, president; John H. Farrington, secretary-treasurer.

Quincy, Fla.—Tobacco Factory.—North Rowe Leaf Tobacco Co. incorporated with \$15,000 capital stock; O. A. Rowe, president; C. H. North, secretary-treasurer.

MANUFACTURERS' RECORD.

Richmond, Va.—Awnings.—Norvell Awning Co. incorporated with \$10,000 capital stock; J. E. Sadler, Lane View, Va., president; H. L. Goode, secretary, and P. E. W. Goodwin, treasurer, both of Richmond.

San Antonio, Texas—Register.—Lone Star Automatic Barber Register Co. incorporated with \$25,000 capital stock to manufacture automatic barber register patented by H. C. Kelley, president; first vice-president, R. M. Blard; second vice-president, F. Binz; secretary, Jos. Murray; treasurer, V. E. Vaughan.

Seguin, Texas—Creamery.—Rich Govett, W. Wilson and others are interested in plans for establishment of creamery.

Selma, Ala.—Paper Mill.—Houston I. Shelly contemplates establishing paper mill to be operated by water-power. (See "Machinery Wanted.")

Statesville, N. C.—Molasses Mill.—C. A. & A. C. Hicks will operate molasses mill.

St. Louis, Mo.—Shoe Factory.—Hamilton-Brown Shoe Co. will erect addition to shoe factory; two stories; brick and concrete; 23x53 feet; three rooms; estimated cost, \$36,000.

St. Louis, Mo.—Soaps, Polishes, etc.—Pottura Chemical Co., 3555 Olive street, recently reported incorporated, will manufacture dry-cleaning soaps and liquids, metal polish, etc.; president, John H. Smithers; secretary, Robert E. Laidley.

St. Louis, Mo.—Oil Manufacturing.—Natural Products Manufacturing Co. incorporated with \$12,000 capital stock to manufacture and deal in oils by Thomas Lonergan, Thomas H. Sprinkle and John S. Garvie.

St. Louis, Mo.—Chemicals.—Ajax Chemical Co. incorporated with \$50,000 capital stock to manufacture and deal in boiler compounds and engine-room supplies by William J. Castanle, Nathaniel L. McGuire and Otto A. Metzow.

St. Louis, Mo.—Carbonic Acid Gas, etc.—Charles F. Busch and George Mearer are, it is reported, negotiating with an Eastern chemical company for erection of plant to manufacture carbonic acid gas, ammonia and other products.

Umatilla, Fla.—Turpentine.—Petteway Turpentine Co. incorporated with \$20,000 capital stock; S. W. Petteway, president; George S. Petteway, secretary-treasurer.

Wellsburg, W. Va.—Paper Mills.—Enterprise Paper Co. incorporated with \$25,000 capital stock by J. E. Ratcliffe, G. J. Rine, F. E. Adams, J. B. Palmer and others.

Winston-Salem, N. C.—Creamery.—North Carolina Churnless Butter Co. incorporated with \$50,000 capital stock by A. F. Moses and E. B. Kermers, both of Winston-Salem; G. E. Porter, Atlanta, Ga., and others.

Woodward, Texas.—Bottling Plant.—Woodward Vichy Co. will establish bottling plant.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Fort Worth, Texas.—Chicago, Rock Island & Pacific Railway will, it is reported, expend about \$250,000 for roundhouse and repair-shop improvements; H. U. Mudge, Chicago, Ill., second vice-president.

ROAD AND STREET IMPROVEMENTS

Albany, Ga.—City has disposed of \$10,000 of bonds for paving Broad street and \$5000 of bonds for opening a new street to be known as Davis street; work will probably begin within next several weeks; C. W. Rawson, Mayor. (Mentioned in October.)

Anniston, Ala.—Jeff Davis and John Smith of Anniston are lowest bidders at 88 cents per square yard and will probably receive contract for sidewalk paving, recently mentioned; Thomas E. Kilby, Mayor.

Ballinger, Texas.—City has voted \$20,000 of bonds for street improvements. Address The Mayor.

Baltimore, Md.—City will let contract April 1 to grade, curb and pave with Belgian blocks Fremont avenue from Pratt to Ridgley street, and to furnish Medina sand-stone paving blocks required to pave area of 1600 square yards. B. T. Fendall, City Engineer. (See "Machinery Wanted.")

Clanton, Ala.—City will pave sidewalks on business streets; E. S. Matthews, Mayor.

Durham, N. C.—City will expend \$20,000 in street improvements. Address The Mayor.

Farmville, Va.—Prince Edward county will vote on issuance of \$50,000 of bonds for road improvements; George J. Hundley, County Judge.

Fayetteville, N. C.—City will vote on issuance of \$100,000 of bonds for street paving. Address The Mayor.

Galveston, Texas.—City will vote April 25

on issuance of \$300,000 of bonds to grade, fill, drain, pave and make other improvements to streets and sidewalks. Address The Mayor.

Gulfport, Miss.—City is having plans prepared for proposed improvements; to consist of 40,000 square yards street paving and 30,000 linear feet curbing and subsurface drainage; cost \$125,000; specifications to be ready about April 20; contract will probably be let in May; City Engineer, M. F. Sullivan; Mayor, J. W. Thomas.

High Point, N. C.—City will expend \$60,000 on extension and improvements to water-works, new sewer system and street paving; Will D. Alexander, superintendent Water and Public Works Department.

Huntsville, Ala.—City will pave Washington and Jefferson streets with vitrified brick; bids are asked; R. E. Smith, Mayor. (See "Machinery Wanted.")

Jonesboro, Ark.—J. F. Mason, Hardy Little and W. T. Lane, Commissioners of Paving Districts, will pave Main and Union streets; work will begin in about 30 days.

Jonesboro, Ark.—Improvement District No. 4 will expend approximately \$60,000 in paving of Main and Union streets; seven-eighths of mile; contract not let; J. F. Mason, chairman of Paving Board, Jonesboro.

Lake Village, Ark.—Improvement District No. 5 invites bids for building about 2375 linear feet concrete sidewalks; foundation to be four inches deep, of gravel, sand and cement; contract will be let April 11; W. F. McCorkle, secretary Board of Improvements. (See "Machinery Wanted.")

Lynchburg, Va.—City will construct 2400 square yards granolithic sidewalk on Rivermont avenue; contract will be let March 30; A. R. Long, chairman Street Committee; H. L. Shaner, City Engineer. (See "Machinery Wanted.")

Montgomery, Ala.—Montgomery county has awarded contracts for 22 miles of roadway construction; D. R. Cook of Montgomery, grading and graveling 10 miles on Pine Level road; Mitchell Bros. of Montgomery, for grading and graveling three miles on Huffman road; A. T. Newell, Birmingham, Ala., for nine miles on Mobile road.

Newbern, N. C.—Alsop & Pierce, Newport News, Va., are lowest bidders at 83 cents per square yard for laying about 20 miles of concrete sidewalks and Peerle, Bame & Fisher, Salisbury, N. C., on 15 miles of granite curbing at 20 cents per running foot; bond issue of \$50,000 available; Colvin & Henry, civil engineers, have made surveys; F. T. Patterson, City Clerk. (Mentioned in February.)

New Orleans, La.—Newcomb Realty Co., William E. Grunewald, president, awarded contract to Calonge & Sargent of New Orleans for paving front of 10 squares of property; walks to be six feet wide; also for grading and filling in the lots.

Prestonsburg, Ky.—Commissioners of Floyd county will, it is reported, soon advertise for bids for construction of road from Edwardsville to Harrison county; \$21,250 of bonds have been issued.

Pylesville, Md.—Harford county will improve road between Pylesville and Wilson's Crossroads; contract will be let March 30; W. A. Wheeler, clerk County Commissioners, Belair, Md. (See "Machinery Wanted.")

Shawnee, Okla.—City will open bids March 26 for paving 100 blocks of streets with brick, bituminous macadam, rock or sheet asphalt; estimated cost, \$200,000. Address The Mayor.

St. Louis, Mo.—Board of Public Improvements awarded contracts for improvement of more than six miles of streets; aggregate cost \$375,000, as follows: Victor street, brick, Fruin & Colnon, \$13,521.90; DeSoto avenue, James T. McMahon, \$8236.04; 20th street, James T. McMahon, \$17,567.26; Shaw avenue, Parker Washington Company, \$17,575.97; Grand avenue, Ruecking Construction Co., \$19,062.30; Nebraska avenue, Fruin & Colnon, \$13,180.25; Michigan avenue, Ruecking Construction Co., \$5774.65; Minnesota avenue, Hoffman-Hogan Construction Co., \$16,321.50; Texas avenue, Skrakina Construction Co., \$3885.30; Spring avenue, Ruecking Construction Co., \$16,223.64; Lucky street, Skrakina Construction Co., \$11,954.18; Gasconda street, Hoffman-Hogan Construction Co., \$9571.24; Taylor avenue, Gustavus A. Heman, \$21,816.91; Compton avenue, Ruecking Construction Co., \$10,904.49; Cora avenue, Hanick Quarry & Construction Co., \$9893.50; Krum avenue, Skrakina Construction Co., \$3475.20; Montana street, Ruecking Construction Co., \$7953.88; North Market street, brick, Gustavus A. Heman, \$28,846.03; Spring avenue, Gustavus A. Heman, \$21,820.20; Spring avenue, Fruin-Bambrick Construction Co., \$13,233.85; Monroe street, granite, James T. McMahon, \$4218.44; Victor street, Schneiter Granite

Co., \$30,376.38; Bremen avenue, G. Eyermann & Bro., \$8337.10; LaSalle street, G. Eyermann & Bro., granite, \$6222.60; Westminster street, Parker Washington Company, wood blocks, \$16,071.46. It is understood that the contractors are all of St. Louis.

Taylor, Texas.—City has voted \$25,000 of bonds for macadamizing streets; O. E. Roberts, Mayor. (Recently mentioned.)

Tyler, Texas.—City will vote April 14 on issue of \$10,000 of bonds for vitrified-brick paving on North Spring street; John H. Bonner, Mayor.

Vicksburg, Miss.—Contract will be let April 9 for grading and graveling road No. 132 from limits of Speed's Addition to Confederate avenue; J. D. Laughlin, Clerk of Warren county. (See "Machinery Wanted.")

Wilson, N. C.—Specialty Construction Co., Norfolk, Va., is lowest bidder and will probably receive contract for 90,000 square feet of granolithic sidewalks. (Recently mentioned.)

SEWER CONSTRUCTION

Albany, Ga.—City is planning to soon begin extension of sewer system and water mains, \$15,000 of bonds being available; also on improvement of surface-drainage system, for which \$15,000 of bonds have been issued. C. W. Rawson, Mayor. (Mentioned in October.)

Fayetteville, Tenn.—Lincoln County Commissioners contemplate installation of sewerage system for courthouse.

High Point, N. C.—City will expend \$60,000 in installation of new sewer lines, extending and improving water system and paving streets; Will D. Alexander, superintendent Water and Public Works Department.

Louisville, Ky.—Contract for construction of Section "A" of Beargrass interceptor awarded to E. G. Nave Bros. Company, Portsmouth, Ohio, recently reported as lowest bidder; about 4300 feet of sewer; inside diameter, 6 feet 6 inches; 2200 feet tunnel; 2100 feet open ditch; 1200 piles; work to be completed in 300 days; contract price, with extras, approximately \$100,000; engineer in charge at Louisville, W. N. Morrill.

Oakland, Md.—City contemplates voting in May on issuance of bonds for constructing sewerage system and water-works; Legislature has been petitioned for authority; J. C. Dunham, City Clerk.

Richmond, Va.—Southside Water & Sewerage Co. incorporated with \$25,000 capital stock; Joseph Bryan, president; Jonathan Bryan, vice-president; W. S. Pool secretary; to establish sewerage system and water-works in Chesterfield county.

Stillwater, Okla.—City will vote April 7 on issuance of \$27,000 of sewer bonds. Address The Mayor.

Titon, Ga.—City will construct proposed sanitary sewer system; contract will be let March 30; S. M. Clyatt, Mayor. (See "Machinery Wanted.")

Waurika, Okla.—M. Griffin O'Neill of Dallas, Texas, will construct city's proposed sewer system; construction to begin soon.

TELEPHONE SYSTEMS

Duke, Okla.—Duke Telephone Co. Incorporated by L. J. Williams, W. S. Poole, W. O. Ames and C. Phelps.

Foley, Ala.—South Baldwin Telephone Co. Incorporated by Frank Fesler, J. L. Crouch, C. L. Howe and others.

High Point, N. C.—North State Telephone Co. incorporated with \$20,000 capital stock by W. H. Ragan, W. A. J. Idol, E. M. Armfield, Charles Houser and others.

High Point, N. C.—Southern Bell Telephone & Telegraph Co. (main offices, Atlanta, Ga.) will erect telephone exchange in High Point.

Jefferson City, Tenn.—Citizens' Telephone Co. incorporated with \$10,000 capital stock by H. M. Tittsworth, J. C. Thomas, J. V. Cline and others.

Jonesboro, Tenn.—Chucky Valley & Cherokee Telephone Co. incorporated with \$5000 capital stock by H. C. Jackson, J. J. Brown, John Graham and others.

Maurertown, Va.—Maurertown Mutual Telephone Co. incorporated with \$5000 capital stock; C. F. Hockman, president; J. E. Boyer, vice-president; H. C. Rosenger, secretary-treasurer.

Winston-Salem, N. C.—Southern Bell Telephone & Telegraph Co. (main offices, Atlanta, Ga.) has begun excavating for underground-wire telephone system in business section of Winston-Salem. Terra-cotta conduit, containing tubes for cables, will be placed in concrete two or three inches deep; cost between \$15,000 and \$20,000. Telephone exchange, previously mentioned, is in course

of erection and will be 30x52 feet; front of pressed brick; marble trimmings; steam heat; electric lighting; cost of building \$30,000; equipment, including switchboards, etc., \$15,000; Harwood & Moss, Winston-Salem, contractors; Harry N. Taylor, Atlanta, Ga., architect.

Woodward, Okla.—Farmers' Hub Telephone Co. incorporated with \$6000 capital stock by Henry Hugerman, L. A. Steat, J. E. Combs and F. S. Beber.

TEXTILE MILLS

Bedford City, Va.—Cotton Yarns.—James Grey is the principal in proposed organization of company lately reported; about \$50,000 subscribed and \$100,000 is to be the capital; 500-spindle equipment contemplated for spinning cotton yarns. No further details stated.

Belmont, N. C.—Cotton Yarns.—Majestic Manufacturing Co. has now placed practically all contracts for building and equipping its plant; main building, one-story, 125x340 feet; foundation and mill floor of concrete with maple flooring on top of concrete; A. K. Loftin of Lincolnton, N. C., contractor for building; contractor for machinery is Whiting Machine Works of Whitingville, Mass., through Stuart W. Cramer of Charlotte, N. C., who is architect in charge for Majestic Manufacturing Co.; equipment will be 10,944 spindles, producing fine yarns from 30s up. A. C. Lineberger is president of Majestic Manufacturing Co. (Organization and other details previously reported.)

Burlington, N. C.—Knit Hosiery.—Whitehead Hosiery Mills will increase capital stock from \$10,000 to \$15,000 and increase equipment; present equipment, 50 knitting machines; product, fine-gauge seamless half-hose.

Colorado, Texas.—Cotton Goods.—West Colorado Land Co., B. N. Garrett, president, is planning erection and equipment of cotton mill; details not determined and no contracts awarded as yet. (See "Machinery Wanted.")

Kings Mountain, N. C.—Cotton Yarns.—Anna Cotton Mills incorporated with capital stock of \$95,000 by J. S. Mauney, F. Dilling, J. M. Williams, C. A. Dilling, D. M. Baker and S. A. Mauney.

Memphis, Tenn.—Cotton Cloth.—American Bag Co. is arranging, it is reported, to build its proposed mill to make cotton cloth for bag manufacturing.

Memphis, Tenn.—Cotton Yarns and Cloth.—W. J. Huribut, Industrial agent of the Southern Railway Co., Washington, D. C., is negotiating with Northern capitalists relative to the formation of corporation to build large cotton-yarn and cloth mill at Memphis.

Rock Hill, S. C.—Cotton Cloth.—Arragon Cotton Mills will double plant, now operating 10,240 spindles and 280 looms; mentioned in December as probably to double.

Walhalla, S. C.—Cotton Hosiery.—Oconee Knitting Mills will increase capital stock from \$30,000 to \$50,000; present equipment, 75 knitting machines; daily capacity of 400 dozen pairs to be increased to 600.

WATER-WORKS

Albany, Ga.—City contemplates soon beginning work on extension of water mains and sewerage system, for which \$15,000 of bonds have been sold. C. W. Rawson, Mayor. (Mentioned in October.)

Altus, Okla.—City will construct water-works, for which \$60,000 of bonds were recently reported voted; will build reservoir with approximate capacity of 500,000,000 gallons at cost of \$50,000; engineer in charge, J. H. Smith, division engineer, Kansas City, Mexico & Orient Railway, Altus.

Cushing, Okla.—City will vote April 1 on issuance of bonds for installing water-works; cost \$19,000. Address The Mayor.

Dallas, Texas.—Municipal Commission has selected C. A. Gill of Dallas as architect for new pumping station at Turtle Creek; engine-room 100x60 feet; boiler-room 44x70 feet; basement 12 feet deep, in which will be built concrete foundation of new 10,000,000-gallon pumping engine, purchased at \$64,500 from the William Tod Company, Youngstown, Ohio; cost about \$20,000; J. B. Winslett, City Secretary. (Mentioned in January.)

Dickson, Tenn.—City has voted \$25,000 of bonds for construction of water-works. Address The Mayor. (Recently mentioned.)

Fort Cobb, Okla.—City contemplates installation of water-works; wants to correspond with engineers and contractors. Address The Mayor. (See "Machinery Wanted.")

Galveston, Texas.—City will vote April 25 on issuance of \$100,000 of bonds to construct duplicate water main across Galveston bay. Address The Mayor.

High Point, N. C.—City will expend \$60,000 in extending and improving water system, establishing new sewer lines and paving; septic tank may be built; Will D. Alexander, superintendent, Water and Public Works Department.

Hugo, Okla.—City will construct water-works system, for which \$150,000 of bonds were reported voted in January; consulting engineer, Hiram Phillips, St. Louis, Mo.; H. P. Farrar, City Engineer.

Jackson, Ky.—Jackson Electric & Hydraulic Manufacturing Co., incorporated with \$20,000 capital stock by L. P. Gunn, Lexington, Ky., and others, will install and operate water-works. (See "Electric-light and Power Plants.")

Jackson, Miss.—Alcorn A. & M. College will construct water-works; Legislature has appropriated \$8000. (See "Schools.")

Oakland, Md.—City has petitioned Legislature for authority to issue bonds for constructing water-works and sewerage system, and if permission is granted will hold election in May; J. C. Dunham, City Clerk.

Ocilla, Ga.—City has voted \$15,000 of bonds for extending water-works and erecting City Hall. Address The Mayor.

Oklahoma City, Okla.—City will award contract April 10 for improvements to water-works, costing about \$50,000. It is planned to drill another clear well with capacity of 1,000,000 gallons, build sedimentation or coagulating basin of similar capacity and install meters. (Mentioned in February.) Address The Mayor.

Pine Bluff, Ark.—Pine Bluff Light & Water Co., F. G. Bridges, president, awarded contract to W. P. Carmichael, St. Louis, Mo., for erection of 3,000,000-gallon reservoir. (Recently mentioned.)

Richmond, Va.—Southside Water & Sewerage Co. incorporated with \$25,000 capital stock by Joseph Bryan, president; Jonathan Bryan, vice-president; W. S. Pool, secretary, to establish water-works and sewerage system in Chesterfield county.

Richmond, Va.—Contract for repairs to concrete feeder wall at settling basin awarded to Stamper Bros. & Ragland, 9th street near Main. Richmond, includes excavation for foundations, construction of forms, back filling behind wall and erection of small coffer dam; 2500 cubic yards; to be completed in four months; superintendent by City Engineer; cost of repairs, \$18,000.

Stillwater, Okla.—City will vote April 7 on issuance of \$33,000 of bonds for water-works extension. Address The Mayor. (Recently mentioned.)

Waurika, Okla.—M. Griffin O'Neill of Dallas, Texas, will construct city's proposed water-works; work to begin soon.

WOODWORKING PLANTS

Bedford, Miss.—Staves.—Little & Lee, J. W. McDaniel, manager, Paducah, Ky., will establish stave mill at Bedford and is negotiating for purchase of cottonwood timber tract.

Blevins, Ark.—Caf and Wagon Stock, etc.—Dan Mast will rebuild woodworking plant recently reported burned; will erect frame building with iron roof; 64x110 feet; cost of building \$2000; cost of machinery \$15,000; make car, wagon, plow and chair stock; daily capacity 20,000 feet; building materials and machinery for present need ordered; plans for building and construction by owner. (Name incorrect in previous notice.)

Bossier, La.—Butter-tub Stock.—Fields Manufacturing Co., E. L. Fields, manager, Shreveport, La., will establish at Bossier the factory recently mentioned; will make butter-tub stock and handles.

Darlington, S. C.—Baskets, Boxes, etc.—W. C. Smith (said to represent capitalists of Buffalo, N. Y.) has purchased property of Darlington Veneer Co. at \$8500, and will, it is reported, enlarge plant and manufacture fruit baskets and boxes.

Greenwood, Miss.—Staves.—Wayne Stave Co., Sims, Ill., will establish plant in Greenwood for manufacturing slack-barrel staves and lumber; G. W. Walker, Vandalia, Ill., president; G. A. Walker, Sims, Ill., will be in charge of plant at Greenwood.

Helena, Ark.—Washboards.—American Washboard Co. will, it is reported, establish plant for manufacturing washboards and washboard stock.

Mebane, N. C.—Chairs.—Continental Chair Manufacturing Co. incorporated with \$100,000 capital stock by J. A. Trolling, L. Puryear and W. E. White.

New Orleans, La.—Excelsior.—W. J. Comerford (offices, Leake avenue and Millandson street) will establish excelsior factory with daily output of 30,000 pounds; John F. O'Neill will furnish machinery.

Oklahoma City.—Sash and Doors.—Curtis & Gartside Company, A. L. Gartside, secretary, will erect addition to sash and door manufacturing plant.

Pine Bluff, Ark.—Shingles.—Moark Timber Co., J. D. Harnett, president, will establish shingle mill about 10 miles from Pine Bluff with capacity of about 700,000 feet. Construction work has begun. (See "Lumber Manufacturing.")

Statesville, N. C.—Mantels and Fireboards. C. A. & A. C. Hicks will manufacture mantels and fireboards.

Washington, D. C.—Trunk Factory.—James S. Topham will erect proposed trunk factory; contractors, McLaughlin Bros., Inc., 100 East Lexington street, Baltimore, Md.; New England mill construction; 90x100 feet; steam heat; electric elevators; electric motors and woodworking machinery will be installed; work on building commenced.

BURNED

Anderson, S. C.—H. C. Tonnsend's store building; loss \$7500.

Anderson, S. C.—J. S. Fowler's cotton gin; loss \$5000.

Belleville, Md.—Isaac O. Swain's sawmill. Buford, Ga.—R. H. Allen's tannery; loss about \$50,000.

DeWitt, Ark.—E. J. Sprattin's sawmill and handle factory; loss about \$4000.

Dunn, N. C.—Newberry Bros. & Cowell's furniture factory; loss \$50,000.

Frederick, Okla.—T. B. Simmons' cotton gin; loss \$9000.

Gadsden, Ala.—Commercial Hotel; Johnson estate, owner; R. W. Lewis, manager; loss \$10,000.

Hattiesburg, Miss.—J. J. Newman Lumber Co.'s sawmill; reported loss \$200,000; Ferdinand Peck, Scranton, Pa., president.

Homeland, Ga.—Wade & Patterson Tie & Wood Co.'s plant; loss \$10,000.

Lake Providence, La.—Walker & Fischer's sawmill; loss about \$30,000.

Little Rock, Ark.—Southern Cotton Oil Co.'s hull shed; loss \$13,000.

Lumberton, Miss.—Camp & Hinton Co.'s drykilns, lumber shed and machine shops; reported loss \$20,000.

Martinsburg, W. Va.—Crawford Woolen Mills' storage building; loss about \$10,000.

Mish, Miss.—J. J. Arrington's hotel; loss \$30,000.

Norfolk, Va.—Berkley Soap Factory, owned by A. G. Paxton; loss \$4000.

St. Louis, Mo.—Forest Park University; loss about \$60,000.

Summerville, Ga.—Residence of Misses Annie and Hattie Martin; loss about \$10,000.

Summit, Miss.—Summit Gin & Improvement Co.'s oil mill; reported loss \$42,000.

Titusville, Fla.—Acme Fiber Extract Co.'s plant, owned by C. A. Spencer of Boston, Mass.; loss \$50,000.

BUILDING NOTES

• Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

APARTMENT-HOUSES

Bessemer, Ala.—Ramsay & McCormack will erect two-story apartment-houses; contract awarded.

Kansas City, Mo.—L. M. Rowland will erect business and apartment building; two stories; cost \$10,000.

Kansas City, Mo.—G. R. Jorgensen will erect two-story brick apartment-house costing \$5000.

Kansas City, Mo.—D. C. Gammie, 704 Harrison St., will erect apartment-house; plans by Clifton Sloan, Kansas City; 80x75 feet; brick and stone; three stories and basement; 21 apartments; natural-gas heaters; gas and electric lighting; cost not yet estimated; bids to be opened about April 7.

Kansas City, Mo.—Charles C. Smith will erect apartment-house; brick; 38x60 feet; cost \$10,000.

Kansas City, Mo.—L. Crosby & Sons have had plans prepared by J. G. Braecklein for four brick six-apartment houses; site is 136x99 feet, and cost \$5197.50.

Kansas City, Mo.—J. H. Howell will erect apartment-house; two stories; four apartments; 38x38 feet; stone, brick and concrete; cost \$7000.

New Orleans, La.—Winfield S. Gauche has contracted with Metropolitan Building Co., New Orleans, for erection of apartment-house containing 10 suites of rooms.

Norfolk, Va.—Mrs. E. M. Cherry will erect apartment-house on west side of Cherry street; cost \$5000. Dunavant & Watkins, Norfolk, have received contract.

Richmond, Va.—Mrs. J. H. Davis, 2003 Floyd avenue, will build apartment-house; two eight-room apartments; bath and gas; brick and stone trimmings; hot-water heat; gas lighting; cost about \$7500; architect, W. G. Carneal, Richmond; contractor, Jno. F. Black, 2410 Grove avenue, Richmond. (Recently noted to be built by J. F. Black.)

Richmond, Va.—W. Creed Davis will erect three brick apartment-houses to cost \$6000.

Richmond, Va.—Charles A. Brown of Brown & Taylor will erect five apartment-houses, two apartments in each, each equipped with gas, water and steam heat; E. F. Polndexter of Richmond, contractor.

St. Louis, Mo.—William O. Langen has purchased site with frontage of 50 feet at \$6500 on which to erect store and apartment-house.

St. Louis, Mo.—F. Wenger has purchased site with frontage of 30 feet on which to erect apartment-house.

St. Louis, Mo.—Roessler & Krone have purchased site 25x200 feet on which to erect store and apartment building.

St. Louis, Mo.—Lenz-Haller Realty Co. will supervise erection of apartment-house costing \$27,500.

St. Louis, Mo.—Christian Hoeckel has purchased site 35x125 feet on which to erect apartment-house costing \$7000.

St. Louis, Mo.—Henry F. Welsch has purchased site 30x178 feet at \$1050, on which to erect single apartment-house of five and six rooms, costing \$6000.

St. Louis, Mo.—Harold Realty Co. will erect proposed apartment-house; C. Cunliff, 10½ North 8th street, architect and contractor; three-story building; 36 apartments; 15x140 feet; steam heat; gas and electric lighting; cost \$55,000.

Washington, D. C.—T. H. Pickford, 1410 G street N. W., will erect apartment-house recently mentioned; plans by owner; 30 apartments; semi-fireproof; steam heat; gas and electric lighting; passenger elevator 5x5 feet; cost of building \$80,000. (See "Machinery Wanted.")

BANK AND OFFICE BUILDINGS

Alexandria, Va.—Robinson Moncure has awarded contract to Samuel P. Devaughn of Alexandria for erection of office and dwelling; two stories; white-brick front.

Anadarko, Okla.—Site has been purchased for office building and Odd Fellows' Hall; architect not engaged; correspondence desired. Address Building Committee, care of Odd Fellows' Association, Anadarko. (See "Miscellaneous Structures.")

Baltimore, Md.—McLaughlin Bros., Inc., 100 East Lexington street, have purchased lot, 127x100 feet, at Bolton street and Camel alley and will erect building 30x50 feet for office, drafting and model rooms and engineering department; fireproof; steam heat; cost \$5000; construction by owner.

Barbourville, Ky.—W. M. Jones will erect hotel and office building; three stories; brick; cost \$20,000.

Birmingham, Ala.—W. H. Woodward of Birmingham has awarded contract to John Griffith & Son, Chicago, Ill., for erection of 16-story steel frame office building adjoining 16-story Brown-Marx Building, with which new structure will be merged; site for new building, having frontage of 94 feet and total area of 11,400 square feet, has been purchased at \$135,000; Brown-Marx Building is 56x100 feet; combined structure will have frontage of 150 feet and depth of 100 feet for 100 feet of frontage and 140 feet for remaining 50 feet of frontage, total area of which will be 17,000 square feet; addition will contain 500 rooms and Brown-Marx Building has 300, giving total of 900 rooms. New building will contain 10 elevators (including four in present building), equipped with flash signals; vacuum cleaning system; mahogany interior doors; white marble finishing in corridors. It is expected that site will be cleared within 30 days, construction begun within 60 days and building completed about March 1, 1909. Estimated cost \$600,000. Sibley-Menge Pressed Brick Co. of Birmingham has contract to furnish 500,000 bricks for the building. W. C. Weston, First National Bank Building, Birmingham, is architect.

Corpus Christi, Texas.—City National Bank awarded contract to Jansen & Zempner, Galveston, Texas, for erection of building; pressed brick; four stories; interior finish, marble and mahogany; cost \$70,000; E. H. Libes, New York, N. Y., architect; Hoggson Bros., New York, N. Y., in charge of decorating.

El Paso, Texas.—Mr. Mills contemplates soon beginning erection of proposed eight-story office and business building; contract awarded to George A. Fuller Company, Munsey Building, Washington, D. C., and Fuller Building, New York.

Frederick, Md.—Citizens' National Bank, Joseph D. Baker, president, has awarded contract to Charles J. Cassidy Company, 523 13th street N. W., Washington, D. C., for erection of bank building; one story; fireproof; steel and granite; exterior of Concord white granite; monolithic columns between windows supporting cornice; granite columns at entrance; site 60x75 feet; J. A. Dempwolf, York, Pa., architect.

Lawton, Okla.—First National Bank has let contract for erection of proposed \$75,000 bank building.

Oklahoma City, Okla.—H. C. Kelsel and H. D. Oats will erect office building 50x100 feet; five stories; brick; cost \$30,000.

Selma, Ala.—People's Bank & Trust Co., C. M. Howard, president, will erect bank and office building; steel and pressed brick; 8 or 10 stories; plans will soon be prepared.

Sharon, S. C.—Hill Banking & Mercantile Co., W. L. Hill, president, will erect bank and store building; three stories; brick; 70x100 feet; contract awarded for 1,000,000 brick to be used in erecting this building and cotton warehouse.

St. Joseph, Mo.—Selden-Breck Construction Co., C. R. Vaughn, general superintendent, St. Louis, Mo., has contract for erection of 10-story steel office building; will establish branch offices in St. Joseph.

Tulsa, Okla.—Brittain-Upp Grocer Co. will erect storage and office building; two stories; brick; Carthage stone trimmings; cost \$7500.

CHURCHES

Bainbridge, Ga.—Methodist Episcopal Church has awarded contract at about \$22,000 to Winder Lumber Co., Winder, Ga., for erection of edifice mentioned in January; plans by W. B. Camp, Jacksonville, Fla.

Baltimore, Md.—Forest Park Methodist Episcopal Church is having plans prepared by Haskell & Barnes, 407 Wilson Building, Baltimore, Md., for edifice recently mentioned; stone; gothic design; slate roof; seating capacity of auditorium 500; cost \$25,000; size 42x90 feet; steam heat; electric lighting; bids to be opened early in April; Rev. J. M. Gillum, pastor.

Bristol, Tenn.—West Bristol Mission, Rev. A. Bunn, pastor, will erect church.

Callahan, Fla.—Baptist Church will open bids March 30 for erection of edifice recently mentioned; building to be 36x74 feet; brick walls; acetylene-gas lighting; plans by W. B. Camp, 20 main street, Jacksonville, Fla.

Edna, Texas.—Presbyterian Church will open competitive plans March 23 for construction of edifice recently mentioned; as proposed, building will be of brick, with 200 seating capacity in main auditorium; cost about \$11,000; acetylene-gas lighting; R. E. Saunders, secretary.

Enterprise, Ala.—Baptist congregation has awarded contract to C. P. Payne at \$16,500 for erection of edifice.

Lexington, Mo.—Methodist Episcopal congregation will erect edifice; two stories; 50x10 feet; brick and stone; cost \$30,000; plans by Miller & Opel, Jefferson City, Mo.

Memphis, Tenn.—First Church of Christ, Scientist, will erect edifice; seating capacity 800; cost \$30,000. Address The Pastor, First Church of Christ, Scientist.

Memphis, Tenn.—Stevenson Memorial Methodist Church will erect edifice on Horn Lake pike; either brick or stone construction; Rev. John T. Myers, pastor.

Sherman, Texas.—Rev. J. L. Pierce, pastor Travis Street M. E. Church, will erect church at Travis and Mulberry streets; plans have been prepared; cost \$50,000.

Winchester, Ky.—First Christian Church, J. H. MacNeill, pastor, awarded contract to H. V. Lucas of Winchester at \$39,899 for erection of edifice; stone and white brick; 80x130 feet; ordinary construction; plans by Desjardine & Shebley, Fourth National Bank Building, Cincinnati, Ohio, and Commercial Building, Louisville, Ky.; brick will be furnished by Winchester Brick Co.

Wynne, Ark.—Methodist Episcopal congregation will erect edifice; pressed brick; two stories; cost \$12,000. Bids are invited; certified check, \$200. Plans and specifications on file at office of L. M. Weathers, architect, Memphis, Tenn., or of E. L. Burke, Wynne.

COURTHOUSES

Beaumont, Texas.—Jefferson county is considering erection of addition to courthouse; F. W. Steinman, architect, Beaumont, esti-

mates cost at \$30,000; W. H. Pope, District Judge.

Nashville, Tenn.—Davidson county will make improvements to courthouse, including erection of additional story, installation of elevator, steam-heating equipment, gas and electricity, etc.; Wheeler, Runge & Dickey, Charlotte, N. C., are preparing plans.

Orangeburg, S. C.—Orangeburg county will remodel courthouse, expending about \$20,000. D. G. Zeigler & Co., Columbia, S. C., and Atlanta, Ga., are preparing plans.

Thomaston, Ga.—Board of Commissioners of Roads and Revenues of Upson county will open bids April 14 for furnishing material and erecting county courthouse; three stories; main body 64x94 feet; brick, stone, terra-cotta, tile and iron; estimated cost \$50,000; plans and specifications on file in office of Board at Thomaston and of architects, Frank P. Milburn & Co., Home Life Building, Washington, D. C.; certified check, \$1000; B. G. McKenney, F. M. Garner and J. A. Franklin, Board of County Commissioners; M. H. Sandwich, clerk Board of Commissioners. (Recently mentioned.)

DWELLINGS

Anderson, S. C.—G. Walter Chambers has had plans prepared for proposed dwelling in C. Gadsden Sayre & Co. of Anderson; 35x30 feet; two stories; nine rooms; frame and stucco; ordinary construction; electric lighting; cost \$3000. (See "Machinery Wanted.")

Baltimore, Md.—John T. Donohue, 100 South East avenue, will erect 12 two-story dwellings, each 14x50; cost \$15,000.

Baltimore, Md.—George P. Crate, 312 Gorgas avenue, will erect seven two-story brick dwellings, each 14x50 feet, between Tyler and Taylor streets, Homestead; Henry J. Tinley, 501 Hoffman Building, architect.

Baltimore, Md.—Charles Herbold, 652 West Lee street, has purchased site 119x90 feet at \$900 on which to erect 10 dwellings; total expenditure, \$50,000.

Baltimore, Md.—Walter B. McCordell, Law Building, will erect 28 dwellings on Appleton street; two stories; brick; 14x52 feet; electric and gas fixtures; hot-water heat; cost about \$60,000; John R. Forsythe, 232 St. Paul street, Baltimore, architect.

Baltimore, Md.—Ellicott & Emmart, Union Trust Building, Baltimore, have contemplated plans for cottage No. 3 at Bancroft Park, on Park Heights avenue, for Bancroft Park Co., William L. Haworth, manager, Equitable Building; three stories, 30x37 feet; frame and stone; interior hardwood finish; slate roof. Contractors estimating are Phil Watts, Pikesville, Md.; W. E. Harn, 2700 Huntingdon avenue; Arthur F. West, 217 South Gilmer street, and Gladfelter & Chamber, 2072 Woodberry avenue, each of Baltimore.

Beaumont, Texas.—H. C. Mauer, Park Bank Building, has designed fireproof reinforced concrete residence; plans specify General Fireproofing Co.'s (Youngstown, Ohio) pin-connected girder frames, resting on reinforced concrete columns, for reinforcement of beams and girders carrying floors.

Chester, S. C.—T. L. Nichols will erect bungalow and camphouse at Edgemont, S. C., after plans by Hook & Rogers, Trust Building, Charlotte, N. C.; will install water-works, sewerage, lighting plant, &c.

Donaldsonville, La.—Catholic congregation, Rev. J. M. T. Massardier, pastor, has, it is reported, awarded contract to Birmingham Contracting Co., Birmingham, Ala., for erection of two-story brick presbytery.

Hobart, Okla.—Bretch Bros. contemplate erection of \$15,000 residence; correspondence with architects desired.

Louisville, Ky.—John G. Burns will erect frame residence. A. C. Pigg of Louisville has prepared plans and will supervise erection.

Marion, Va.—W. W. Hurt, Damascus, Va., will erect residence at Marion.

Marion, Va.—B. H. Baylor will erect residence on Strother street.

Nashville, Tenn.—R. H. Maxson will erect one-story brick residence to cost \$6000.

Norfolk, Va.—William Sloane, William Sloane & Co., Berkley, Va., will erect residence in Norfolk to cost between \$30,000 and \$50,000.

Oklahoma City, Okla.—J. M. Rouse awarded contract to J. W. Lucas, 518 East 9th street, Oklahoma City, for erection of residence recently mentioned; plans by Mr. Lucas.

Pikesville, Md.—Jonas I. Hamburger, 1727 Bolton street, Baltimore, Md., will erect residence at Pikesville; frame; two stories and attic; 47x27 feet, with wing in rear 16x23 feet; three bathrooms, finished in tiling and porcelain plumbing fixtures; steam heat; |

electric lighting; stable, two stories high, 30x20 feet; pumphouse, connected with artesian well. Otto G. Simonson of Simonson & Pietsch, American Building, Baltimore, Md., has prepared and distributed revised plans and specifications. Bids will be opened March 23. Following contractors are estimating: John Cowan, 106 West Madison street; Henry Smith & Sons Company, 216 South Regester street; Thomas B. Stanfield & Son, 109 Clay street; R. B. Mason, 615 East 30th street; George A. Blake, 301 Law Building; Henry Rippl, 7 Clay street; Chas. L. Stockhausen, 1 National Marine Bank Building; James F. Farley, Franklin Building, all of Baltimore, Md.

Richmond, Va.—Smith & Hall will erect six brick dwellings to cost \$16,000.

Rosedale, Md.—J. C. Hurst will erect four frame dwellings at Chelasco Park, near Rosedale station; plans by Henry J. Tidley, 11 East Lexington street, Baltimore; four rooms each; 16x30 feet; cost \$1000 each.

St. Louis, Mo.—A. A. Fisher Realty Co. will erect 15 dwellings at Washington Heights.

St. Louis, Mo.—A. B. Finch will erect six two-story dwellings costing \$24,000.

Washington, D. C.—John H. Lloyd, 745 Varnum street N. W., will erect three dwellings; three stories; six rooms each.

Washington, D. C.—William H. Kullman, 929 Maryland avenue S. W., has purchased site 28x100 feet on which to erect residence.

Washington, D. C.—W. O. Engler, 1300 Emerson street N. E., will erect dwelling; two stories and attic; brick; cost \$6500; hot-water heating; gas and electric lighting; contracts let; plans by N. T. Haller Company, 212 Corcoran Building, Washington.

Washington, D. C.—W. V. Reeves has purchased from John M. Davis, 710 10th street N. W., property on P street, with frontage of 42 feet and depth of 80 feet, at \$62,250. Mr. Reeves will erect three-story residence and remodel store building now located on the site. Address Mr. Reeves, care of Mr. Davis.

Washington, D. C.—Zepp Bros., 1305 F street N. W., will erect six two-story brick dwellings at 1210 to 1222 C street N. E.; estimated cost, \$14,000; A. H. Beers, 717 14th street N. W., architect.

Washington, D. C.—G. J. Osterman, The Rochambeau, will erect two-story frame dwelling at 3624 34th street N. W.; estimated cost, \$5500; F. B. Pyle, 1003 F street N. W., architect.

Washington, D. C.—Alexander R. Varela, 1405 Maryland avenue N. E., will erect residence on Connecticut avenue; two stories and attic; colonial style; pebble-dash exterior; slate roof; bath; Oscar G. Vogt, Corcoran Building, Washington, architect.

Winchester, Ky.—Harry Strother will erect residence.

HOTELS

Albemarle, N. C.—Mrs. Alice Mabry awarded contract to L. A. Moody, Albemarle, for erection of hotel noted in February; plans by Field & Lilly, Wilmington, N. C.; ordinary construction; 40x60 feet; steam heat; electric lighting; cost \$8000.

Barbourville, Ky.—W. M. Jones will erect three-story brick hotel and office building to cost \$30,000.

Bunkie, La.—Mrs. J. D. Ernest will erect brick hotel containing 40 rooms.

Cullom Springs (not a postoffice), Ala.—John T. Cochrane and William G. Cochrane, president and vice-president Tombigbee Valley Railroad Co., Mobile, Ala., have purchased and will improve Cullom Springs property; contemplate enlarging hotel; will use natural gas for fuel and lighting; water pipes to be installed in hotel; bathrooms and large swimming pool. (See "Miscellaneous Enterprises.")

Jacksonville, Fla.—Robert W. Simms will erect hotel; plans by W. B. Camp, 20 Main street, Jacksonville; 72x100 feet; four stories; mill construction, with outside brick walls; steam heat; electric lighting; electric elevator; cost \$25,000; bids to be opened about May 1.

Kansas City, Mo.—W. W. Goodwin Securities Co. will erect apartment hotel 125x59 feet; five stories; brick, stone, steel and concrete; interior hardwood finish; cost \$60,000.

Melville, La.—C. W. Krotz, Defiance, Ohio, and Melville, La., will, it is reported, erect hotel and develop property at Latonner for health and summer resort.

Pensacola, Fla.—Company will be organized to erect hotel to cost about \$350,000 for Hervey Hotel Co., Mobile, Ala. John E. Stillman, Pensacola, is chairman of special committee.

Port Arthur, Texas.—Port Arthur Hotel Co. organized by John W. Gates and asso-

ciate for erection of hotel recently mentioned; three stories; frontage 250 feet; reinforced concrete; tile roofing; 100 guest rooms; cost \$125,000.

Wheeling, W. Va.—August Hottmann will erect three-story stag hotel and cafe; Giesey & Faris of Wheeling, architects; Gundling & Nohilly, agents for Mr. Hottmann; M. S. Holt and James E. Harbison, lessees.

MISCELLANEOUS STRUCTURES

Anadarko, Okla.—Odd Fellows' Hall.—I. O. O. F. will erect hall, for which site has been purchased. (See "Bank and Office Buildings.")

Barbourville, Ky.—Business Building.—B. D. Dishman will erect brick business building.

Bay City, Texas.—Business Building.—Henry Ruegeley and Z. E. Scofield have contracted for erection of brick building; frontage 50 feet.

Calhoun, Ky.—Lodge Building.—Vienna Masonic Temple Association will erect building recently mentioned; architect not employed; building of brick; two stories; 30x70 feet; storeroom on first floor; lodgerooms above; ordinary construction; cost \$4500; bids to be opened about May 1. R. Alexander, Calhoun, may be addressed.

Columbia, S. C.—Thomas Taylor will erect barn at dairy to accommodate 200 cows. Plans have been prepared. R. G. Dorsey, Experiment, Ga., will be in charge of dairy.

Dallas, Texas.—Fair Buildings.—State Fair and Park Board will open bids March 28 for erection of grandstand and agricultural hall; grandstand to be 64x300 feet; steel; cost \$40,000; plans by C. A. Gill & Son, Dallas, Texas; agricultural hall plans by Overbeck & Willis, Dallas, Texas, one story; 8x375 feet; cement stone block; lighting not decided; cost \$25,000; Sydney Smith, secretary. (Recently mentioned.)

Elkins, W. Va.—Lodge Building.—Date of awarding contract for erection of State Odd Fellows' Home at Elkins, or for heating, lighting and plumbing separate, has been postponed from February 7, as previously stated, to April 8. Plans and specifications on file at office of Alexander & Chaplin, architects, New Martinsville, W. Va.; O. S. McKinney, Fairmont, W. Va.; Elkins National Bank, care of J. D. Marsteller, Elkins, and of Cecil-Jones Company, Parkersburg, W. Va. Building will cost about \$50,000. About \$25,000 will probably be expended for improving grounds and erecting auxiliary structure. Bids will be received at office of John A. Bock, chairman of committee, Farmington, W. Va., and opened in building of Sharon Lodge No. 28, I. O. O. F., Parkersburg, W. Va.

El Paso, Texas.—Clubhouse.—El Paso Country Club will erect clubhouse mentioned in February; architect not engaged; as contemplated, building will be fireproof, with steam heat and electric lighting; cost \$30,000; H. L. Young, assistant secretary.

Fort Howard, Md.—Coal Shed.—Bids will be received until April 6 for coal shed at Fort Howard. Information on application. U. S. reserves usual rights. Address Constructing Quartermaster.

Fort Monroe, Va.—Government Building.—R. H. Richardson & Son, Hampton, Va., have contract for erection of proposed storehouse; two stories; 40x62 feet; mill construction; hot-water heating; electric lighting; hand-power elevator; cost \$28,000.

Fort Smith, Ark.—Scenic Coaster Co., recently reported incorporated, will erect scenic roadway of 2000 feet; cost \$10,000; president, D. J. Young; vice-president, Louis Bedelle; secretary and treasurer, John W. Howell.

Gatesville, Texas.—Reformatory.—Penitentiary Commissioners (W. H. Gill, chairman; J. T. Mewshaw and R. H. Hicks), 100 South Jefferson street, Dallas, Texas, will open bids March 26 for erection of kitchen and dining-room of reformatory at Gatesville according to plans and specifications on file in office of H. C. Barlow, architect, Dallas, Texas, and of John H. Boyd, assistant superintendent, at Gatesville; certified check, \$500, payable to Mr. Gill, chairman of Board; bond, \$2000; usual rights reserved.

Kansas City, Mo.—Business Block.—I. A. Adler, 1621 Central street, has had plans prepared by Daniel Sutton, 1612 Main street, Kansas City, for business building recently mentioned; offices and light manufacturing; four stories, 62x48 feet; steam heat; electric and gas lighting.

Kansas City, Mo.—Home.—Perry Home for Orphan Boys will erect addition; two stories; stone and reinforced concrete; fireproof; stairways of concrete slabs with wooden treads; contain infirmary, dormitory, bathrooms, shower baths, gymnasium 42x56 feet, etc.; fire doors between buildings; cost \$50,000; will also erect two-story brick building 30x40 feet, to contain heating plant and laundry; plans by Clifton B. Sloan, Rickseker Building, Kansas City.

Lafayette, La.—Southwestern Louisiana Industrial Institute, E. L. Stephens, president, will erect barn according to plans furnished by Bureau of Plant Industry of United States Department of Agriculture.

Louisville, Ky.—Store Building.—Fred W. Kelker & Son, 586 Fourth avenue, will erect store building, for which plans are being prepared by John B. Hutchings of Louisville.

Mangum, Okla.—Temple.—Masonic Temple will be erected; plans are being made. Address H. Maloy, Mangum.

Marion, Va.—Store.—Cole-Eller Company will erect brick store building.

Memphis, Tenn.—Department Store.—Bry Block Mercantile Co. awarded contract to Gray Construction Co., St. Louis, Mo., for remodeling department-store building recently mentioned; plans by Shaw & Pfleil, Tennessee Trust Building, Memphis; reinforced concrete; 75x106 feet; steam heat (direct and indirect); electric lighting; three Otis elevators; cost \$100,000.

Mineral Wells, Texas.—Bathhouse.—Taylor & Mount will open bids April 1 for erection of bathhouse; three stories and basement; brick; 75x120 feet; certified check, \$3000; plans and specifications at office of Walter E. Taylor, Continental Bank Building, Fort Worth, Texas, and office of Taylor & Mount, Mineral Wells. Usual rights reserved.

Norfolk, Va.—Business Building.—T. J. Wool and associates will, it is reported, erect business building.

Orangeburg, S. C.—Jail.—Orangeburg County will remodel jail building; brick, granite, stone, &c.; steam heat; cost \$20,000. D. G. Zeigler & Co., Columbia, S. C., and Atlanta, Ga., are preparing plans.

Paris, Ky.—Business Building.—R. J. Neely has awarded contract to W. F. Chappell of Paris for erection of business building; three stories; pressed brick with Bedford trimmings; first floor will contain three business rooms, each 20 feet wide; second floor will contain flats of five rooms each; hot-water heating; gas and electric fixtures; cost \$22,000.

Pensacola, Fla.—Government Buildings.—Edwards Construction Co., Tampa, Fla., has contract for erection of hospital and quarters for officers at Santa Rosa Quarantine Station; cost \$12,168.50. (Mentioned in February.)

Statesville, N. C.—Store Building.—L. C. Wagner will erect block of stores; plans by Hook & Rogers, Trust Building, Charlotte, N. C.

Washington, D. C.—Store Building.—P. J. Lee Company, 745 7th street, recently noted to remodel store, will erect three-story addition for furniture and carpets; 56x100 feet; iron construction; steam heat and electric lighting; completed structure to be 50x175 feet, with cellar under all; plans by B. Stanley Simmons, 523 9th street N. W., Washington, D. C.; contractor, Peter Fersinger, 1 N street N. W., Washington; cost about \$30,000.

Washington, D. C.—Bakery Building.—Bids will be received at office of H. L. Pettus, Quartermaster Walter Reed Army General Hospital, Takoma Substation, Washington, D. C., until April 13 for remodeling and building addition to bakery at Washington Barracks, D. C., including plumbing, gas piping, wiring for electric lighting, lighting fixtures and steam heating; plans, specifications, blank proposals and further information on application; deposit of \$10 required for drawings and specifications; U. S. reserves usual rights.

Washington, D. C.—Business Building.—J. D. Burns, 1101 E street N. W., has purchased three building lots, 51x70 feet, on E street and is having plans prepared for erection of building.

MUNICIPAL BUILDINGS

Albany, Ga.—City Hall and Barracks.—City contemplates soon beginning public improvements, mentioned in October, including erection of City Hall, for which \$30,000 of bonds are available; also police barracks. It is probable that present municipal building will be remodeled; C. W. Rawson, Mayor.

Alexandria, Va.—Office Building.—Samuel Devaughn, contractor, has begun proposed improvements to office of Clerk of Corporation Court; \$500 appropriated; plans call for steel cage for records.

Baltimore, Md.—Pagodas.—Board of Awards will receive bids until April 1 for erection of two pagodas at Latrobe Park for use of Park Commissioners; certified check, \$500;

drawings and specifications on file at office of Edward D. Preston, Inspector of Buildings; usual rights reserved.

Baltimore, Md.—Park Mansion House.—City will improve mansion house in Druid Hill Park; contract will be let April 1; certified check \$500; drawings and specifications on file in office of Edward D. Preston, Building Inspector; usual rights reserved.

Beaumont, Texas.—Fire Stations.—City has accepted plans and engaged H. C. Mauer of Beaumont as supervising architect for three fire stations; brick or stone; total cost \$20,000; plans for brick or stone; market-house to cost \$20,000 will be accepted later; J. G. Sutton, City Secretary. (Recently mentioned.)

Maryville, Mo.—City Hall.—City is considering election for voting on \$25,000 bond issue for erection of City Hall, recently mentioned; F. P. Robinson, Mayor.

Ocilla, Ga.—City Hall.—City has voted \$15,000 of bonds for erecting city hall and extending water-works. Address The Mayor.

Richmond, Va.—Engine-house.—Engine-house, contract for which was recently noted awarded to John F. Black, 2410 Grove avenue, Richmond, will be two-story brick building; 30x75 feet; gas and electric lighting; hand-power elevator; cost \$7500; plans by W. C. West, Richmond.

RAILWAY STATIONS

Eunice, La.—St. Louis & San Francisco Railroad, C. F. Hinckley, engineer, St. Louis, Mo., will, it is reported, construct brick depot at Eunice; cost \$10,000.

Houston, Texas.—Houston Belt & Terminal Railway, W. E. Green, vice-president and general manager, will open bids about April 25 for erection of freight stations recently mentioned; two houses, one 24x600 feet, one 46x400 feet; mill construction; hot-air heating; electric lighting; cost \$100,000.

SCHOOLS

Annona, Texas.—City has voted \$7000 of bonds for erection of brick school building. Address The Mayor.

Big Spring, Texas.—City has voted \$6000 of bonds for erection of school building. Address The Mayor.

Boyce, Va.—Chapel District School Board will expend \$10,000 in erection of school building recently mentioned; plans by A. H. Sonnerman, Washington, D. C.; contractor, J. P. Diffenderfer of Boyce.

Buntn, Tenn.—Shelby County Board of Education, Memphis, Tenn., will open bids March 28 for erection of Elizabeth Messick County High School; 104x65 feet; three stories and basement; brick; assembly room with seating capacity of 150; estimated cost \$20,000; plans on file in office of Jones & Furbinger, Dr. D. T. Porter Building, Memphis, Tenn.; certified check \$250; usual rights reserved. (Recently mentioned.)

Eunice, La.—Police Jury will consider calling election to vote on tax for erection of school building.

Fortress Monroe, Va.—Capt. E. R. Tilton, Constructing Quartermaster, will invite bids for erection of coast artillery school building for officers and another structure for enlisted men; estimated cost \$500,000; former building will have frontage of 162 feet and two main wings 118 feet in depth; fireproof; two stories and basement; basement will contain laboratory, printing and press rooms, mechanical workshops, etc.; first floor, main offices, electrical laboratories, etc.; second floor, assembly and lecture room, 78x39 feet, chemical laboratory and model room, etc.; pressed Indiana limestone to height of water table, and above of brick, laid in Flemish bond, with limestone trimmings and cornice; walls in corridors, workrooms and laboratories finished in brick. Second building will have similar exterior and will contain plant to furnish light and power in both structures. Plans and specifications have been completed.

Galveston, Texas.—City will vote April 25 on issuance of \$50,000 of bonds to erect, repair and maintain school buildings. Address The Mayor.

Jackson, Miss.—Alcorn A. & M. College has perfected plans for erection of proposed building; Legislature has appropriated \$20,000 for the structure, \$5000 for repairs to present buildings and \$8000 for water-works.

Laurel, Miss.—City will award contract April 25 for erection of brick school building to contain 10 rooms, for which DeBuys, Churchill & Ladovisse, Ltd., 817 Hibernalia Bank Building, New Orleans, La., have been instructed to perfect plans. Plans will be on file at City Hall, Laurel, and office of architects at New Orleans on and after April 11; certified check, \$300; security bond for one-half amount of contract; cost of build-

ing is estimated at \$30,000. (Mentioned in February.)

Manchester, Va.—Fifth Street M. E. Church will erect Sunday-school building at a cost of \$7000; Eli Andrews, contractor.

Middletown, Md.—School Commissioners awarded contract to Harry B. Funk, Brunswick, Md., for erection of schoolhouse mentioned in January; plans by R. W. Poole, Frederick; 83x62 feet; two stories; pressed brick; slate roof; partially fireproof; hot-air heating and ventilating; cost \$20,000; Oscar B. Coblenz, County Superintendent, Frederick. (See "Machinery Wanted.")

New Orleans, La.—Tulane University awarded contract to Geo. Glover, Hibernalia Bank Building, New Orleans, for erection of addition and remodeling of present building recently mentioned and described; construction begun; plans by Andry & Bendersnagel, 211 Camp street, New Orleans.

Newton, Miss.—Clarke Memorial College has adopted plans by P. J. Krouse, Meridian, Miss., for erection of boys' and girls' dormitories, with capacity of 100 students each, and temporary chapel, containing classrooms, musical rooms, etc.; later latter building will be converted into industrial home for girls and permanent chapel erected; W. E. Sassing, chairman, and W. L. McMullan, secretary. (Mentioned in February.)

Oak Level (not a postoffice), Va.—Plans for four-room schoolhouse for Halifax county have been prepared by Charles M. Robinson, Richmond, Va.; ordinary construction; hot-air heating; assembly hall; cost about \$5000; contract to be awarded soon. Jas. S. Thomas, school Inspector for Lynchburg Circuit, Lynchburg, Va., may be addressed.

Owensboro, Ky.—Farnsworth & Rootz of Owensboro have contract at \$12,629 for erection of school building; J. C. Frederick, president Board of Education.

Paragould, Ark.—City awarded contract to Southern Building Co. of Paragould for construction of school building recently mentioned; plans by L. M. Weathers, Memphis, Tenn.; fireproof; steam heat; cost \$25,000.

Petersburg, Va.—A. M. Walkup, Richmond, Va., is lowest bidder at \$16,598 for erection of school building in Petersburg; brick and concrete; 12 rooms and auditorium; plans by Charles M. Robinson, 10th and Main streets, Richmond, Va.; J. R. V. Smith, president School Board, Petersburg. (Recently mentioned.)

Pinewood, S. C.—City is considering election to vote on bonds for erection of school building in School District No. 1, costing between \$10,000 and \$12,000. Address The Mayor.

Pleasanton, Texas.—City has voted \$5000 of bonds for erection of school building. Address The Mayor.

Rolla, Mo.—City will vote on issuance of \$6000 of bonds for erection of school building. Address The Mayor.

Russellville, Ky.—City will let contract for school about April 5; plans by C. C. & E. A. Weber, Cincinnati, Ohio; 80x90 feet; two stories, attic and basement; fireproof; steam heat; electric lighting; cost \$17,500; secretary, J. C. Browder. (Recently mentioned.)

Seneca, S. C.—City has voted \$15,000 of bonds for erection of school building. Address The Mayor.

Staunton, Va.—Virginia School for Deaf and Blind, Dr. G. W. Butts, Richmond, Va., president, will have plans prepared for erection of the Swanson Building, costing \$20,000.

Stillwater, Okla.—City will vote April 7 on issuance of \$10,000 of school bonds. Address The Mayor.

Tecumseh, Okla.—City will vote April 7 on bond issue for school building recently mentioned; architect not engaged; as proposed, building will be of ordinary construction; two stories; eight rooms; cost \$10,000; E. J. Dickerson, president of Board.

Washington, D. C.—George A. Fuller Company, Fuller Building, New York, and Munsey Building, Washington, D. C., recently noted as lowest bidder, was awarded contract for construction of schoolhouse at Mount Pleasant; plans by Marsh & Peter, 520 13th street N. W., Washington; two stories and basement; 178x116 feet; ordinary construction; hot-air heating; fan or pneumatic system; electric lighting; cost \$98,000. (See "Machinery Wanted.")

Winchester, Va.—City has voted affirmatively issuance of \$10,000 school-building bonds. Address The Mayor. (Previously mentioned.)

THEATERS

Baltimore, Md.—Francis E. Yewell, 2845 North Calvert street, will erect three-story building, 75x35 feet, on North avenue to

contain 24 bowling alleys, vaudeville theater with seating capacity of 1000, moving-picture theater with accommodations for 800, roller-skating rink, etc.; plans are being prepared by J. Edward Laferty, 11 East Pleasant street, Baltimore.

Barbourville, Ky.—Mountain Lodge No. 187, F. and A. M., has not yet selected architect to prepare plans for theater and Masonic lodge building recently mentioned. As proposed, structure will be 50x100 feet; ordinary construction; steam heat; gas and electric lighting; bids to be opened as soon as plans are secured; John B. Gates, secretary.

Houston, Texas.—H. L. Stevens of Knoxville, Tenn., has, it is reported, submitted lowest bid for erection of theater for Houston Theater Co. (H. T. D. Wilson and H. Prince); six stories; 150x62 feet; fireproof; H. C. Cooke & Co., architects. (Recently mentioned.)

Knoxville, Tenn.—Knoxville Theater Co. incorporated with \$20,000 capital stock by W. G. Neal, Albert Fauz, J. P. Staub and Fritz Staub, all of Knoxville, and Jake Wells, Richmond, Va. (Messrs. Staub and Wells mentioned in February as to remodel Masonic building as theater.)

Pensacola, Fla.—Crescent Theater Co. incorporated, with C. M. Wilson, Jr., president; John B. Guttmann, Jr., vice-president; W. S. Lurton, secretary-treasurer.

Siloam Springs, Ark.—F. L. Main, C. P. Richardson and A. L. McCulley will erect theater; 75x100 feet; two stories.

Wichita Falls, Texas.—Wichita Falls Opera-house Co., recently noted to erect opera-house, will be incorporated; plans by Carl Boller, Kansas City, Mo., will be completed about April 10; bids will be asked; building to be about 65x120 feet; steam heat; electric lighting; cost \$28,000. Charles W. Bean, Wichita Falls, may be addressed.

WAREHOUSES

Baltimore, Md.—Owners' Realty Co., Calvert Building, has awarded contract to F. E. Tobe, 2316 Evergreen terrace, for erection of warehouse at Franklin and Calvert streets; two stories high; 22.9x106 feet; steam heat; gas lighting; hand elevator; cost \$5000.

Baltimore, Md.—Adams Express Co., H. G. Ransburg, general agent, will remodel building recently reported purchased at northwest corner North and Franklin streets; plans by Theodore W. Pietsch, 1001 American Building, Baltimore; mill construction; 106x50 feet; steam heat; electric lighting; electric elevator; cost not announced; for date of opening of bids address architect.

Baltimore, Md.—Baltimore Manufacturing Co., Monument and Buren streets, has had plans prepared by J. Edward Laferty, 11 East Pleasant street, Baltimore, for erection of warehouse at Monument and Courtney streets; three stories; brick; site 50x60 feet. Following contractors are estimating: Samuel Spreat, 203 North Pine street; John Cowan, 106 West Madison street; Edward Watters & Co., 532 St. Paul street; C. C. Watts, 113 West Hamilton street; B. F. Bennett, 123 South Howard street; Willard Harp, 2700 Huntingdon avenue, all of Baltimore.

Kansas City, Mo.—Trimble-Compton Commission Co. will erect two-story brick produce warehouse recently mentioned (under "Miscellaneous Structures"); architect not engaged; 44x60 feet; freight elevator will be installed.

Marion, Va.—Marion Hardware Co. will erect store building and warehouse; two stories.

Sharon, S. C.—Hill Banking & Mercantile Co., W. L. Hill, president, will erect cotton warehouse.

Tampa, Fla.—Tampa Northern Railroad will erect additional warehouses to be used for storing phosphate and lumber; W. B. Denham of Tampa, general manager, is in charge of work. (Recently mentioned under "Railway Shops, Terminals, Roundhouses, etc.")

RAILROAD CONSTRUCTION

RAILWAYS

Augusta, Ga.—Reported that construction has begun in North Augusta on the proposed Augusta & Columbia Railway. James U. Jackson of the Augusta & Aiken Railway and others are interested.

Bartlesville, Okla.—The Freeborn Engineering & Construction Co., Heist Building, Kansas City, Mo., is reported to have been awarded contract to build the Bartlesville Interurban Railway to Dewey, Okla., seven miles. J. J. Curl of Bartlesville, Okla., is president of the line.

Camilla, Ga.—The Georgia, Alabama &

Western Railroad Co. has been granted a charter to build a line 60 miles long from Camilla via Newton to Fort Gaines, Ga. J. A. Kauffman of Atlanta, to whom the charter was issued, is reported as saying that C. V. Sprinkle of Vincennes, Ind., will furnish most of the capital and will build the road; capital stock \$500,000; headquarters in Atlanta. In addition to those named, the incorporators include J. A. McLeary and J. B. Shaw of Atlanta, G. L. Wade, C. E. Watt, Bennett & Cox, W. N. Spence and McRae & McNeill of Camilla, R. L. and W. H. Hall, H. A. Ledbetter and W. T. Livingston of Newton, H. M. Calhoun, W. J. Horsley, B. H. Askew, J. S. Cowart, W. E. Sanders and L. F. Murray of Arlington, and W. H. Hallway of Bluffton, Ga. A press report from Albany, Ga., says that grading has begun on this line between Arlington and Bluffton, Ga.

Camilla, Ga.—Mr. C. Horace McCall, Atlanta, Ga., one of the incorporators, writes the Manufacturers' Record concerning the Camilla & Newton Railway Co., saying the line is now graded and is owned by Mr. Benton Odom of Newton, Ga., and himself. Line is 10 miles long, and after completion it is expected to materially increase the mileage. They are open for a partner with funds.

Cassville, Mo.—The Cassville & Western Railway, five miles long, is reported sold to a syndicate at Eureka Springs, Ark. It is to be converted into an electric line and extended. S. M. Mitchell is president and general manager at Cassville.

Columbia, S. C.—Kelsey & Requa of Charleston, S. C., are reported to have completed surveys at Winnsboro for the South Carolina Public Service Corporation, which proposes to build electric railways connecting Charleston, Columbia and other points.

Corning, Ark.—The Luehrmann & Western Railroad Co. has been incorporated to build a line from a connection with the Iron Mountain division of the Missouri Pacific Railway in Clay county via Denmark to Reyno in Randolph county, nine miles; also branch from Schrenk, on the Iron Mountain, to Denmark, three-quarters of a mile; capital \$20,000. The incorporators are George W. Luehrmann and Thomas W. Fry of St. Louis, Mo.; A. Reicheneder, B. F. R. Alexander and D. Hopson of Corning, Ark.; W. M. Alexander of Knobel, Ark., and others.

Covington, Tenn.—The Memphis, Covington & Northern Railroad Co. is reported to have completed surveys for proposed electric railway from Memphis to Covington, Tenn., 38 miles. Construction may begin this summer. J. B. Gillespie of Covington is president. The W. K. Palmer Company, 718 Dwight Building, Kansas City, Mo., is the engineer.

Dallas, Texas.—President J. F. Strickland of the Texas Traction Co., Dallas, is reported as saying that 32 miles of track have been built on the line from Dallas to Sherman, 63 miles, this being between McKinney to Dallas is to be completed by the end of April. Fred A. Jones is chief engineer; office at Dallas.

Elkin, N. C.—The Elkin & Allegheny Railroad Co. is reported to have graded four or five miles on its proposed line to Sparta, N. C., 50 miles. H. G. Chatham is president; J. W. Stevens, engineer, both of Elkins, N. C.

Fairmont, W. Va.—The Fairmont & Marion Electric Railway Co. will, it is reported, resume work immediately on the construction of its line, which was suspended during the winter.

Fort Worth, Texas.—H. U. Mudge, second vice-president of the Chicago, Rock Island & Pacific Railway, is reported as saying that additional yard tracks are to be built at Fort Worth, and it is contemplated to build a belt line. C. M. Case is chief engineer at Fort Worth, Texas.

Gainesville, Ga.—The Manufacturers' Record is informed that the Atlanta, Norcross & Gainesville Electric Railroad Co. expects to begin construction this summer. H. D. Jaquish of Gainesville, Ga., and others are interested.

Greenville, S. C.—The Greenville & Carolina Railroad Co. proposes to acquire a charter to build a line from Greenville to the boundary of North Carolina, about 25 miles. The incorporators are T. E. Smith, J. W. Kendrick, James A. Bell, John F. Rowland and F. H. Allison.

Hartwell, Ga.—The location survey for the Anderson & Athens Electric Railway, 73 miles long, is reported to have begun. DeCamps & Cunningham of Anderson, S. C., started work from Anderson, S. C., to Hartwell, Ga., and the Richardson-Wey Engineering Co. of Atlanta, Ga., began at Cannon, Ga.

Henrietta, Texas.—The Henrietta & Southwestern Railway is reported to have received rails for 22 miles of track and will lay it im-

mediately. The line is soon to be completed to Charlie, Texas, 28 miles from Henrietta.

Jacksboro, Texas.—Oliver Loving of Jacksboro is reported as saying that a movement is under way at Jacksboro to build a railroad to Seymour, about 75 miles. Dallas (Texas) and New York capitalists are said to be interested.

Johnson City, Tenn.—President George L. Carter of the Carolina, Clinchfield & Ohio Railroad (South & Western), Bristol, Tenn., is reported to have purchased charter of the North Carolina & Virginia Terminal Railroad for a line 45 miles long in the eastern part of North Carolina, with a mile of waterfront to Southport, N. C., this to be used in connection with developing the South & Western. M. J. Caples is chief engineer of the latter at Johnson City, Tenn.

Kansas City, Mo.—The Kansas City South-Eastern Railroad Co. has applied for right of way at Lee's Summit, Mo. Surveys are completed for part of the line and some right of way is secured. The proposed route is through Leeds, Raytown, Little Blue, Lee's Summit, Carroll, Lone Jack, Warrensburg and Sedalia to Jefferson City, Mo. Charles Sims is president, H. W. Gibson vice-president and J. C. Herling is chief engineer. Mr. Sims' address is 3724 East 27th street, Kansas City.

Lauraville, Md.—The Rural Electric Railway & Power Co. has applied for a charter from the Maryland Legislature to build a line from Lauraville to the Falls road near Belvidere avenue, and from Baltimore to Sparrows Point, Md. The bill was introduced by Delegate Michael P. Kehoe of Gowanstown, Md. The incorporators are Hugh J. Gallagher, Walter A. Gephart, W. T. Dietrick, Dr. Harry C. Hess, Robert W. Mowbray and Jacob S. Parr; capital, \$500,000.

McMinnville, Tenn.—Reported that John Henderson of McMinnville and others propose to build an electric railway from Cincinnati, Ohio, via Nashville, Woodbury and McMinnville, Tenn., to Huntsville, Ala.; survey reported made.

Monroe, La.—The Monroe & Southwestern Railroad, it is reported, contemplates building an extension of 12 miles to Chathamville, La. L. N. Polk is chief engineer at Monroe, La.

Muskogee, Okla.—The Missouri, Oklahoma & Gulf Railroad will, it is said, soon let contracts for building its extension from the Canadian river to Denison, Texas. W. H. Prentiss is chief engineer at Duston, Okla.

Mutual, Okla.—The Canadian Valley Railway Co., capital \$2,000,000, has been chartered to build a line from Mutual, or Fort Supply, to Oklahoma City, 150 miles. E. O. McCance of Mutual, Okla., and others are the incorporators.

Myersville, Md.—Reported that survey has begun for the proposed Catoctin & Pen-Mar Railway from Myersville to Wolfville, six miles. Application for a charter has been made to the Legislature. Henry M. Warren-feltz and others are the incorporators.

New Iberia, La.—The directors of the New Iberia, St. Martins & Northern Railroad Co. have authorized a bond issue of \$1,520,000 for the proposed line and branches, or a total of 76 miles of road, of which 42 miles is to be the main line from New Iberia to Port Barre, via St. Martinsville, Breaux Bridge and Arnaudville. The proposed branches are to Loreauville, Broussardville and Abbeville. F. M. Welch of New Iberia, La., is president.

Paducah, Ky.—An official is reported as saying that surveys have been made for the proposed Paducah Northern Railroad to build a six-mile belt line at Paducah; also a line about 14 miles long from Paducah down the Ohio river to a point opposite the river terminal of the Big Four and the Frisco railroads. George C. Wallace of Paducah, Ky., is president and Mark Wymond, American-German National Bank Building, Paducah, Ky., is chief engineer.

Parkersburg, W. Va.—The Little Kanawha Railroad, it is reported, has decided to fulfill its plan to build an extension from Palestine to Burnsburg, W. Va., 50 miles, and also to make a connection with the Ohio River Railroad of the Baltimore & Ohio system for entrance to Parkersburg. S. D. Brady of Parkersburg, W. Va., is chief engineer.

Sapulpa, Okla.—The Sapulpa & Interurban Railway Co. has completed its line from Sapulpa to the oil fields, construction of which was begun in July last. The line is to be extended west to Cushing, Okla., and possibly eastward to Muskogee, Okla.

Scottsboro, Ala.—The Danville, Columbia & Scottsboro Railroad Co. will, it is reported, let further contracts for construction by April 1. President J. F. Allen is reported as saying that a contract for the first 20 miles has been let. E. Watkins of Chattanooga, Tenn., is counsel. Proposed line is from

Scottsboro, Ala., to Danville and Mount Sterling, Ky., about 200 miles.

Shelbyville, Ky.—The Louisville & Eastern Electric Railway Co., it is reported, has given a contract to M. J. McClusky to ballast the extension from Beechwood to Shelbyville. Only one mile of grading remains to be completed. Percival Moore is vice president and general manager at Louisville, Ky.

Springfield, Ga.—President George M. Brinson of the Brinson Railway writes the Manufacturers' Record that the company is arranging to issue bonds on its completed line to build an extension of 28 miles to Sylvania, Ga. The line is now 29 miles long, from Savannah to a point four miles north of Springfield. W. A. Young is engineer in charge.

Tulsa, Okla.—The Cherokee Belt & Interurban Railway Co. of Tulsa, capital \$500,000, has been chartered to build a line to connect Tulsa, Collinsville and other towns in the northeastern part of Oklahoma. The incorporators are F. E. Montee of Kansas City, Mo.; C. W. Butterworth of Tulsa, Okla.; E. J. Caudle, E. Pleas and A. E. Leap of Colcordville, Okla.

Washington, D. C.—The Gretta & Spa Spring Electric Railway Co. is reported to have begun tracklaying for its line on the Bladensburg road.

Wichita Falls, Texas.—J. A. Kemp of Wichita Falls is reported as saying that the Wichita Falls & Southern Railway will be extended from Olney, Texas, to the coal fields in Young county, and grading is to begin immediately.

STREET RAILWAYS

Goldsboro, N. C.—E. T. Oliver of Raleigh, N. C., and Bluefield, W. Va., and associates are reported to have applied to the Goldsboro (N. C.) City Council for a street-railway franchise.

Louisville, Ky.—The Kentucky & Indiana Bridge & Railroad Co. and the Louisville Railway Co. have been given the right to build double-track extensions to the State Fair grounds.

Piedmont, W. Va.—The Potomac Railway Co. has applied for a franchise to build an electric street railway on Fairview street. Anderson & Fickelsen are attorneys.

Shreveport, La.—The Shreveport Suburban Railway Co. proposes to issue \$50,000 of bonds for the construction of its line now under way from Texas and Marshall streets to the Gladstone subdivision.

Spartanburg, S. C.—The Spartanburg Railway, Gas & Electric Co. contemplates building an extension to the baseball park and also to Rock Cliff Park. F. D. McEowen is general manager.

Washington, N. C.—Preliminary survey has begun for the proposed street railway of the Washington Investment Co., of which W. E. Jones is manager.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Agricultural Machinery.—J. E. McGehee, Chatham, Miss., in market for hay harvesting, baling and husking machinery.

Alcohol Machinery.—W. Kinneburgh, Baldwin, Mich., wants to correspond with manufacturers of wood-alcohol distilling machinery; wants information and prices.

Architectural Literature.—See "Building Materials."

Baling Machinery.—J. E. McGehee, Chatham, Miss., in market for hay-baling machinery.

Bathtub Heaters.—D. C. Gammage, 704 Harrison street, Kansas City, Mo., wants catalogues and prices on hot-water heaters for bathtubs.

Belting.—J. T. Smith, Perryville, Ark., wants prices on rubber and leather belting.

Boiler.—Kirwan-Robards Supply Co., 409 Exchange place, Baltimore, Md., wants boiler and engine for concrete mixer. (See "Concrete Mixer.")

Boilers.—Ogburn Canning Co., Lindale, Texas, wants prices on boilers.

Bridge Construction.—E. B. Borron, County Highway Engineer of Bates county, Butler, Mo., will receive and submit bids April 8 to Bates County Court for erection of approach spans for drainage bridge No. 6 of River Drainage District No. 1 and for construction of steel bridge over Shaw branch to replace present wire bridge. Both contracts include sub and superstructure. Plans on file in office of Mr. Borron at Butler; usual rights reserved.

Bridge Construction.—Bids will be opened April 6 for construction of wooden or steel bridge across Sowashee creek on Meridian road. Plans and specifications on file in Chancery Clerk's office; W. R. Pistole, clerk, Meridian, Miss.

Broom Machinery.—Amos J. Hodges, 1403 North Florence street, El Paso, Texas, wants catalogues and prices on broom machinery and supplies, including broomcorn.

Builders' Materials.—The Builders' Club, Harvey and Main streets, Oklahoma City, Okla., wants catalogues and other literature of builders' materials.

Building Materials.—Birmingham Engineering Co., Brown-Marx Building, Birmingham, Ala., will soon want bids on cement, sand, building bricks, white enameled brick, lime, copper wire, tile roofing and roof ventilators.

Building Materials.—Alfred S. Joseph, 1501 Lincoln Bank Building, Louisville, Ky., wants catalogues and samples of building materials of interest to architects.

Building Materials.—Ogburn Canning Co., Lindale, Texas, wants prices on building materials.

Canning Equipment.—Ogburn Canning Co., Lindale, Texas, wants prices on canning equipment.

Canning Machinery.—J. L. Jones, Marshallville, Ga., wants canning outfit.

Canning Machinery.—C. D. Cabaniss, 175 Augusta avenue, Copenhill, Atlanta, Ga., wants machinery and supplies for peach canery; 150,000 cans per season.

Cement-block Machinery.—Corddry Company, Snow Hill, Md., wants information relative to manufacture of cement blocks, cost of machinery, etc.

Coal.—U. S. Engineer's Office, 22d and K streets N. W., Washington, D. C. Sealed proposals for furnishing and delivering 4,240 tons, more or less, of bituminous coal will be received until April 20; information on application; Spencer Cosby, Major, Engineers.

Coal.—Sealed proposals will be received by Washington Gas Light Co., 413 10th street N. W., Washington, D. C., on or before April 6 for the following supply for year beginning April 11, 1908, and ending April 7, 1909: 30,000 tons best three-quarter-inch screened gas coal, delivered as needed to West Station Works, 26th and G streets N. W., alongside wharf; 15,000 tons best three-quarter-inch screened gas coal, delivered as needed to East Station Works, 12th and M streets S. E., on tracks in yard; 20,000 tons anthracite broken coal, delivered as needed to West Station Works, 26th and G streets, N. W., alongside wharf; 7000 tons anthracite broken coal, delivered as needed to East Station Works, 12th and M streets S. E., on tracks in yard; 1500 tons best quality steam coal, delivered as needed to East Station Works, 12th and M streets S. E., on tracks in yard; shipments to West Station to be made in barges acceptable to company and payments made on Washington Gas Light Company's weights; shipments to East Station will be paid for according to initial railroad weights; all coals to be in gross tons of 2240 pounds each; contractors required to give ample security; usual rights reserved; all proposals to be sealed and addressed to the Washington Gas Light Company, and marked "Proposals for Coal."

Concrete Mixer.—Kirwan-Robards Supply Co., 409 Exchange place, Baltimore, Md., is in market for second-hand concrete mixer mounted on wheels, with boiler and engine; one-half or two-thirds yard capacity.

Contractors' Machinery.—The Builders' Club, Harvey and Main streets, Oklahoma City, Okla., wants catalogues and other literature of contractors' machinery.

Corn Sheller.—A. J. Baldwin & Co., 102-104 Main street, Dawson, Ga., want corn sheller that will take corn in ear, shuck and shell it, and separate cobs, shucks and corn.

Cotton Gins.—H. J. Harris, Harris Gin Co., Troy, Ala., wants cotton-gin machinery.

Cotton Mill.—West Colorado Land Co., B.

N. Garrett, president, Colorado, Texas, wants estimates on construction and equipment of cotton mill.

Cotton-mill Engineers.—See "Cotton Mill."

Creamery Machinery.—See "Refrigerating Machinery."

Distilling Machinery.—See "Alcohol Machinery."

Ditch-digging Machine.—Sumter Iron Works, Sumter, S. C., wants self-operating ditch-digging machine; to throw dirt behind machine.

Doors.—Dr. J. W. Babcock, superintendent State Hospital, Columbia, S. C., wants prices on doors.

Doors.—See "Rolling Doors."

Dredge Bucket.—Dunn Machinery Co., 54 Marietta street, Atlanta, Ga., in market for three-quarter-yard orange-peel clam-shell bucket for digging sand from river bottom; second-hand. (See "Hoisting Equipment.")

Dredging Machinery.—Hale-Bitting Concrete & Construction Co., J. Lee Hale, general manager, care of Metropolitan Hotel, Birmingham, Ala., wants information and prices on light dredging machinery.

Dredging Plant.—Richmond Water & Light Co., Richmond, Ky., wants small suction dredge to clean reservoir of silt; probably require eight-inch pump; wants to discharge material 100 to 200 feet from where dredge is located; extreme depth of dredging not over 12 feet; second-hand equipment will do.

Electric Fixtures.—See "Lighting Equipments."

Electric Wiring and Fixtures.—H. L. Petrus, Quartermaster, Walter Reed Army General Hospital, Takoma Substation, Washington, D. C., will award contract April 13 for wiring for electric lighting, lighting fixtures, steam heating, plumbing and gaspiping for bakery at Washington Barracks, District of Columbia. (See "Miscellaneous Structures.")

Electrical Equipment.—Ogburn Canning Co., Lindale, Texas, wants prices on electrical equipment.

Electrical Machinery.—Pfannmueller Engineering Co., 1134 First National Bank Building, Chicago, Ill., wants alternator and engine; 75 to 125-kilowatt 60-cycle three-phase 40-volt alternator, direct connected to engine; also wants one 100-kilowatt 60-cycle three-phase 220-volt belt-driven alternator and switchboard.

Elevators.—Bids will be received until April 16 at office of Building for National Museum, Library of Congress, Washington, D. C., for furnishing, delivering and erecting in place complete seven electric elevators for National Museum. Specifications and other information on application; Bernard R. Green, superintendent of construction.

Engine.—Pfannmueller Engineering Co., 1134 First National Bank Building, Chicago, Ill., wants alternator and engine. (See "Electrical Machinery.")

Engine.—Dunn Machinery Co., 54 Marietta street, Atlanta, Ga., in market for 50 to 60 horse-power stationary engine; second-hand; no lowest price, condition and other particulars.

Engine.—Kirwan-Robards Supply Co., 409 Exchange place, Baltimore, Md., wants engine and boiler for concrete mixer. (See "Concrete Mixer.")

Engines.—See "Gasoline Engines."

Engines.—See "Oil Engines."

Engines.—See "Gas Engines."

Engines.—Ogburn Canning Co., Lindale, Texas, wants prices on engines.

Ferrule Machinery.—American Specialty Manufacturing Co., corner Simpson and Marietta streets, Atlanta, Ga., wants to correspond with manufacturers of machinery for making ferrules.

Filtering Plant.—Alfred A. Glasier, president United Oil & Refining Co., Beaumont, Texas, wants to correspond with builders of plants for filtering river water for use in oil refinery.

Fire Shutters.—Henry Loeb & Co., Memphis, Tenn., want addresses of manufacturers or patentees of fire shutters; shutters to be controlled by crank or power shaft.

Forging Companies.—See "Shovel-blade Manufacturers."

Gas Engines.—City Light & Power Co., Taylor, Texas, wants information on producer gas engines.

Gas Fixtures.—See "Lighting Equipments."

Gaspiping.—See "Electric Wiring and Fixtures."

Gas Ranges.—D. C. Gammage, 704 Harrison street, Kansas City, Mo., wants bids on 21 natural-gas kitchen ranges with hot-water connections.

Gas Stoves.—See "Stoves."

Gasoline Engines.—Sabel Bros., Jacksonville, Fla., want to correspond with manufacturers of gasoline engines.

Gasoline Railroad Car.—Star Realty Co., 308 North 21st street, Birmingham, Ala., wants to correspond with manufacturers of gasoline railroad motor cars. Will be in market for car.

Grinding Machinery.—See "Tannery Machinery."

Grist Mills.—Sumter Iron Works, Sumter, S. C., wants name of manufacturers of "Queen of the South" grist mills.

Hardware.—Dr. J. W. Babcock, superintendent State Hospital, Columbia, S. C., wants prices on locks and other building hardware.

Hardware.—Monroe Manufacturing Co., Monroe, N. C., wants catalogues and prices on cabinet hardware.

Hardware.—John N. Bourke, American consular agent, Honfleur, France, is prepared to correspond with builders' hardware manufacturers relative to introducing American products.

Heating Equipment.—See "Stoves."

Heating Equipment.—See "Electric Wiring and Fixtures."

Heating Plant.—George A. Fuller Company, Munsey Building, Washington, D. C., wants estimates on heating system for school building; hot-air fan or plenum system.

Heating System.—F. E. Giesecke, professor of agricultural engineering and drawing, College Station, Texas, will open bids April 2 to furnish material and labor for construction of hot-water heating system for Goodwin Hall at A. & M. College; plans and specifications on file in office of Mr. Giesecke; usual rights reserved.

Hoisting Engines.—Hale-Bitting Concrete & Construction Co., J. Lee Hale, general manager, care of Metropolitan Hotel, Birmingham, Ala., wants information and prices on hoisting engines.

Hoisting Equipment.—Dunn Machinery Co., 54 Marietta street, Atlanta, Ga., in market for three or four-drum hoisting equipment; second-hand.

Ice Tools.—Yarbrough & Bellinger Company, Charlotte, N. C., may need ice-plant tools, etc.

Iron Work.—T. H. Pickford, 1410 G street N. W., Washington, D. C., wants bids on iron work for \$80,000 apartment-house.

Iron Work.—B. C. Bynum Construction Co., Birmingham, Ala., wants prices on ornamental-iron work and stairs.

Laundry Machinery.—T. L. Pickle, Box 442, East Radford, Va., wants to correspond with manufacturers or contractors for steam-laundry equipment.

Laundry Machinery.—L. W. Bostick, Wauchula, Fla., wants prices on laundry machinery.

Leadpencil Machinery.—American Specialty Co., corner Simpson and Marietta streets, Atlanta, Ga., wants to correspond with manufacturers of ferrules and rubbers for lead-pencils.

Lens-drilling Machines.—Z. F. Highsmith Company, Sumter, S. C., wants bids for manufacture of lens-drilling machines. Specifications and blueprints will be furnished.

Lighting Equipments.—John N. Bourke, American consular agent, Honfleur, France, wants to correspond with manufacturers of gas and electric lighting equipments and supplies.

Lighting Fixtures.—T. H. Pickford, 1410 G street N. W., Washington, D. C., wants bids on gas and electric fixtures for \$80,000 apartment-house.

Locomotive.—Hale-Bitting Concrete & Construction Co., J. Lee Hale, general manager, care of Metropolitan Hotel, Birmingham, Ala., wants information and prices on new or second-hand dinky engine.

Locomotive.—Peacock's Iron Works, Selma, Ala., in market for 20 to 30-ton standard-gauge direct-connected locomotive, second-hand, and with tank on separate wheels.

Locomotive.—See "Railway Equipment."

Machine Tools.—E. Keeler Company, Williamsport, Pa., wants to buy second-hand shaper; first-class condition; 24 to 30-inch; 28 to 30-inch size preferred.

Machinery and Tools.—Bids will be received at office of H. F. Hodges, general purchasing officer, Isthmian Canal Commission, Washington, D. C., until April 20 for engine, power hammer, belt-driven punch, power shears, blacksmith drills, forges, anvils, repair parts for pneumatic hammers, swage block and stand, tinsmiths' punches, etc. Blanks and general information relating to Circular No. 434 obtainable from above office or offices of assistant purchasing agents, 24 State street,

New York; Custom-house, New Orleans; 1086 North Point street, San Francisco, and 410 Chamber of Commerce Building, Tacoma; also from United States Engineer office in Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville and Mobile.

Machinists.—See "Lens-drilling Machines."

Mantels.—T. H. Pickford, 1410 G street N. W., Washington, D. C., wants bids on mantels for \$80,000 apartment-house.

Metal Machinery.—See "Ferrule Machinery."

Mill Work.—T. H. Pickford, 1410 G street N. W., Washington, D. C., wants bids on mill work for \$80,000 apartment-house.

Millwork.—G. Walter Chambers, 638 East River street, Anderson, S. C., wants prices on millwork.

Monumental Work.—E. R. Stuart, Captain, Engineers, U. S. A., Charleston, S. C., will open proposals April 23 for furnishing materials and constructing monument on Kings' Mountain battlefield; information on application.

Motor Car.—See "Gasoline Railroad Car."

Oil Engines.—City Light & Power Co., Taylor, Texas, wants information on fuel-oil engines.

Oil Machinery.—H. J. Harris, Harris Gin Co., Troy, Ala., wants hydraulic oil press and other cottonseed-oil machinery for separating oil, seeds and hulls.

Paper-mill Machinery.—Houston I. Shelley, Selma, Ala., wants information on manufacture of paper from raw material to finished product; also estimates on paper-mill machinery.

Paving.—Improvement District No. 5, through W. F. M'Corkle, secretary Board of Improvements, Lake Village, Ark., will receive bids until April 11 for building about 2375 linear feet of concrete sidewalks five feet wide; foundation four inches deep, of gravel, sand and cement and top finish, one inch. Five street crossings will be built; usual rights reserved.

Paving.—Sealed proposals will be received in duplicate by R. E. Smith, Mayor of Huntsville, Ala., until May 1, 1908, for paving with vitrified brick on five-inch concrete foundation Washington street from intersection with north side of public square to intersection with north curb line of Meridian pike or street, including all street, avenue or other highway intersections, and for curbing thereof with granite curbstone, in accordance with plans and specifications on file in office of City Clerk. Plans and specifications furnished on request; certified check for \$100; usual rights reserved.

Paving.—Sealed proposals in duplicate will be received by R. E. Smith, Mayor of Huntsville, Ala., until May 1, 1908, for paving with vitrified brick on five-inch concrete foundation Jefferson street from intersection with north side of public square within 50 feet of center of main track of Southern Railway Co., including all street, avenue or other highway intersections, and for the curbing thereof with granite curbstone. Plans and specifications, on file in office of City Clerk, will be furnished on request; certified check for \$100; usual rights reserved.

Paving.—Sealed proposals in duplicate will be received by R. E. Smith, Mayor of Huntsville, Ala., until May 1, 1908, for paving with vitrified brick on five-inch concrete foundation Jefferson street from intersection with north side of public square within 50 feet of center of main track of Southern Railway Co., including all street, avenue or other highway intersections, and for the curbing thereof with granite curbstone. Plans and specifications, on file in office of City Clerk, will be furnished on request; certified check for \$100; usual rights reserved.

Paving.—Council Committee on Streets, Lynchburg, Va., will open bids March 30 for construction of granolithic sidewalk on Rivermont avenue; bond \$1000; certified check \$300, payable to A. R. Long, chairman Street Committee; work consists of about 890 cubic yards excavation and 2400 square yards granolithic sidewalks; plans, specifications, etc., at office of H. L. Shiner, City Engineer; usual rights reserved.

Piping.—Birmingham Engineering Co., Brown-Marx Building, Birmingham, Ala., will soon want bids on steam and water piping.

Plumbing.—Bids will be received at office of Quartermaster, Fort Myer, Va., until April 6 for installing plumbing in one set field officers' quarters, three double sets lieutenants' quarters, barrack, stable and gun shed. Bidders must state trade name of fixtures on which they base proposals as well as name of producing manufacturer; certified check or surety company's guarantee for

10 per cent. of amount of bid. Plans and specifications furnished on application to above office; deposit of \$10 required to secure plans; Government reserves usual rights. Address Capt. H. B. Hyer, Constructing Quartermaster.

Plumbing.—See "Electric Wiring and Fixtures."

Postal Boxes, etc.—Postoffice Department, G. L. Meyer, Postmaster-General, Washington, D. C., will open proposals May 11 for furnishing combination letter and package boxes and package boxes for four years—July 1, 1908, to 1912; blank forms and other information on application.

Producer Gas Equipments.—See "Gas Engines."

Pump.—See "Dredging Plant."

Pump.—Hale-Bitting Concrete & Construction Co., J. Lee Hale, general manager, care of Metropolitan Hotel, Birmingham, Ala., wants information and prices on sand pump.

Rails.—Hale-Bitting Concrete & Construction Co., J. Lee Hale, general manager, care of Metropolitan Hotel, Birmingham, Ala., wants information and prices on light relaying rails.

Railway (Miniature).—D. J. Young, Fort Smith, Ark., wants a miniature railway; locomotive, cars, rails, etc., complete.

Railway Equipment.—Dunn Machinery Co., 54 Marietta street, Atlanta, Ga., is in market for new or second-hand plantation locomotive to operate on wood rails; 1 per cent. grade; three miles per hour; to pull 10 tons; wants also one car for same. Send full specifications, with price; freight allowed to Savannah, Ga.

Refrigerating Machinery.—O. Sinneford, Richmond, Va., wants addresses of manufacturers of dairy apparatus for reducing temperature of milk below 50 degrees before shipping.

Rice-mill Machinery.—Alfred L. Nickerson, Cidade de Goyaz, Estado de Goyaz, Brazil, wants catalogues, prices and discounts on tannery machinery, treating hides, grinding bark, etc.

Tin Cans.—See "Canning Machinery."

Tramways.—Hale-Bitting Concrete & Construction Co., J. Lee Hale, general manager, care of Metropolitan Hotel, Birmingham, Ala., wants information on tramways.

Vault.—Baltimore (Md.) Board of Awards will receive bids until April 1 for erection of vault in office of Board of Park Commissioners at Madison avenue entrance, Druid Hill Park; certified check, \$500; drawings and specifications on file in office of Edward D. Preston, Building Inspector; usual rights reserved; J. Barry Mahool, Mayor; J. Sewell Thomas, City Register.

Ventilators.—See "Building Materials."

Washing Machinery.—Hale-Bitting Concrete & Construction Co., J. Lee Hale, general manager, care of Metropolitan Hotel, Birmingham, Ala., wants information on sand and gravel washing machinery.

Water-works.—City of Fort Cobb, Okla., wants to correspond with engineers and contractors relative to water-works. Address The Mayor.

Well-drilling.—Board of Improvement District No. 4 will open proposals April 6 for deep well; specifications on application to Hermon Carlton, secretary of board, Lake Village, Ark.

Wire.—See "Building Materials."

Wire Cloth.—John N. Bourke, American consular agent, Honfleur, France, wants to correspond with manufacturers of wire fencing and cloth relative to introducing American products.

Wireworking Machinery.—Reading Wood Pulp Co., Reading, Pa., wants machinery for weaving wire mattresses.

Woodworking Machinery.—John N. Bourke, American consular agent, Honfleur, France, is prepared to correspond with manufacturers of woodworking machinery and tools relative to introducing American products.

Zincwhite.—Oscar Polack, Brandstwile, Hamburg, Germany, wants agency for American zincwhite manufacturers.

INDUSTRIAL NEWS OF INTEREST

To Resume Operations.

The Central Foundry Co. of Bessemer, Ala., will resume operations before April 1 and employ from 150 to 200 men. It has not been operating for about 90 days.

Wants to Manage Industrial Enterprise.

A man of technical knowledge and practical experience, conversant with machine shop practice, seeks engagement as manager or superintendent of an industrial enterprise. For further details address No. 277, care of the Manufacturers' Record.

Factory Manager Wanted.

An experienced manager is wanted for a large foundry, forge and machine plant located in the Middle West. One who can invest in the enterprise and reorganize the company with himself as president is especially invited to investigate. Address "Experience," care Manufacturers' Record.

Manager Seeking Engagement.

The recent manager of the American Sky-light and Iron Works is seeking a new engagement. He states he has had practical experience in sheet-metal work of all kinds, mechanical engineering, plumbing, heating, estimating, designing and selling. Address C. C. Sofield, 3 Prospect Place, Richmond Hill, N. Y.

Alfred S. Joseph, Architect.

Alfred S. Joseph (formerly with McDonald & Dodd) has established offices at 1501 and 1502 Lincoln Bank Building, Louisville, Ky. He will practice architecture in all its branches, and invites manufacturers to send him catalogues and other literature, samples of products and other data that may interest an architect.

For Attention of Manufacturers.

The owners of an established foundry and machine shop located advantageously for

March 26, 1908.]

MANUFACTURERS' RECORD.

63

supplying the West and Southwest are prepared to consider consolidation with someone manufacturing an established line of product. They will also consider selling or leasing their plant. For information address "Machinery," care Manufacturers' Record.

Sale of Basket-Making Equipment.

The buildings and machinery of the Mengerhauer-Horton Basket Co. will be offered at public sale on April 15 and from day to day until all the property is disposed of. This plant comprises real estate, buildings, 104 automatic basket-making machines, etc. Particulars can be obtained by addressing W. P. Hummel, special master, Paducah, Ky.

Southern Timber Lands for Sale.

Great acreages of Southern timber land remain undeveloped, and portions of them are offered for sale from time to time. Among the properties offered at present is an 83,500-acre tract in Texas, a 20,000-acre tract in Louisiana and 1440 acres in Mississippi. Information as to prices and terms can be obtained from W. H. Kenna, Box 78, Jackson, Miss.

A Gas-Jet Cook.

J. Wilson Allen of 138 Greenwich street, Reading, Pa., is offering the "Liberty Bell" gas-jet cook, a device claimed to produce 105 degrees Fahrenheit from a jet burning six feet of gas per hour. It is stated the device will cook anything that a gas range will cook at the cost of illuminating. Mr. Allen will sell the foreign patents and invites investigation.

Order for 15,000 Barrels of Portland Cement.

Construction activity throughout the South is bringing orders of considerable extent to the Standard Portland Cement Co. of Leeds, Ala. This company mentions among its recent contracts one for 15,000 barrels of Portland cement. It is now arranging to increase the capacity of the plant, and in this connection is increasing capital from \$150,000 to \$200,000. F. H. Lewis is the company's manager.

Immediate Shipments of Structural Material.

The continuation of building activity is resulting in many and good-sized orders for manufacturer and dealers. Among those prominent in meeting the Southern demand is the R. C. Foster Company, Brown-Mars Building, Birmingham, Ala. This company states it is receiving many orders. It is prepared to make immediate shipments of structural material—beams, angles, channels, frames, etc.

Merchants & Miners' Transportation Company.

The Merchants & Miners' Transportation Co. announces the following schedule for its steamship lines: Between Baltimore and Boston, Baltimore and Providence via Newport News and Norfolk, Baltimore and Savannah, Philadelphia and Savannah, Philadelphia and Boston. Freight and passengers are taken for all points North and South. W. P. Turner is passenger traffic manager, offices at German and Light streets, Baltimore, Md.

Wilmington Iron Works Completes Important Contract.

An important contract has been completed by the Wilmington Iron Works of Wilmington, N. C. It was from the U. S. Engineers' Department for a cast-iron elbow for 36-inch pipe for use on the suction dredge Jacksonville. The elbow has a great deal of machine work on it and weighs nearly 5000 pounds. The company obtained the contract in competition with a number of other firms, its price being considerably lower than any of the others.

Representing Du Bois at Cleveland.

The Du Bois Iron Works of Du Bois, Pa., announces that it has appointed a representative at Cleveland, Ohio. This representative is Robert R. Harkins, mechanical engineer, with offices at 1526 Williamson Building. He was formerly Pittsburgh manager for the Atlas Engine Works and has had extensive experience with steam engines, gas engines and producer-gas plants. The Du Bois company manufactures gas, gasoline and kerosene engines, producer plants and Du Bois steam and power pumps.

Busy Making Brick Machinery.

Messrs. J. C. Steele & Sons, manufacturers of the New South brickmaking machinery and labor-saving appliances, Statesville, N. C., report that they are again operating their plant on full time, having received many orders during the past few weeks. They have shipped and have orders for out-

fits as follows: No. 4 outfit for Oglethorpe, Ga., Concord, N. C., and Durham, N. C.; No. 3 outfit for Cerro Gordo, N. C., Roanoke, Va., Asheville, N. C., Newbern, N. C., and Washington, Ga.; No. 2 outfit for Moltonville, N. C., Peachland, N. C., and Pineview, N. C.

Large Orders for Corrugated Bar.

The Expanded Metal & Corrugated Bar Co. of St. Louis, Mo., reports the receipt of many large orders recently, as follows: Philippine Government at Manila, 500 tons of corrugated bars for use on the island, purchased through Paul S. Carter, P.A., New York; Hiram Lloyd Construction & Building Co., contractor for high school in St. Louis, 500 tons corrugated bars; W. A. Engemann, contractor for reinforced concrete retaining wall at St. George Ferry Landing, Staten Island, N. Y., as part of plan for municipal improvements of Borough of Richmond, 600 tons corrugated bars.

H. W. Clark Warns Infringers.

H. W. Clark of 1518 Broadway, Mattoon, Ill., announces that his patents for the Clark meter box are being infringed and that he is preparing to institute suits against the infringers, with the intention of full prosecution. The Clark meter box is well known to water-works companies and engineers throughout the country. It is usually conceded to be a most satisfying device for its intended purposes. An interesting instance of recognition is that the Government adopted the H. W. Clark meter box and plan of installation for its extensive metering in Washington, D. C.

With General Fireproofing Co.

R. L. Babcock, formerly with Merritt & Co. of Philadelphia, in future will have charge of the locker department at the plant of the General Fireproofing Co., Youngstown, Ohio.

The manufacture of lockers or wardrobes is one of the features of the company's "All-steel" furniture business.

The company has placed many of its "Allsteel" lockers with high-class commercial organizations which desired individual wardrobes of a superior type. The features which command consideration for these lockers are their excellent construction, their novel design, permitting of perfect ventilation, and their beautiful finish.

The Crescent Oil Engine.

The builder of the Crescent oil engine offers that machine as an efficient and economical power equipment for pumping water and for other purposes. This engine burns crude, fuel or kerosene oil, it is easy to start and operate, and has no batteries or spark devices and no valves to grind. It is adapted to the operation of electric generators and to supply power for general purposes. These features will appeal to power users as comprising factors desirable in an oil engine, and the Crescent should be investigated by them. The Samuel L. Moore & Sons Corporation of Elizabethport, N. J., is the builder; offices and plant at Front and Franklin streets.

Weber Steel-Concrete Chimney Co.

The Weber Steel-Concrete Chimney Co., Marquette Building, Chicago, Ill., announces that owing to it increasing its field of activity in taking on other kinds of plain and reinforced concrete construction work in addition to chimneys, it has been decided to change the name of the company, so that hereafter it will be known as the Weber Company. The company is now prepared to carry out contracts for all kinds of concrete and reinforced work, including foundations, walls, buildings, sewers, chimneys, etc., and already has some large contracts in these different lines under construction. The Weber Company has branch offices in New York, Atlanta, Cincinnati, St. Louis, Houston, Memphis, Minneapolis, Denver, Salt Lake City, Los Angeles, San Francisco and Seattle; also in London, England; Paris, France, and Halle a. S., Germany.

On Special Interest to Wire Rope Users.

In the use of wire rope for hoisting buckets and other similar loads from deep shafts there has been a great deal of experimenting to obtain a wire rope that would not untwist while the load was being lifted, thus spinning the load around rapidly, causing the rope to unwind and scattering the load. There has been considerable research and experimentation, resulting in the invention by Olaf Tangring (the wire-rope expert of the American Steel & Wire Co.) of a process whereby the rope is so peculiarly laid together in the making that it will not untwist, regardless of the length of the rope that may be suspended in a deep shaft, for which he made application for patent. As

may be expected, other manufacturers have recognized the worth of this method of making wire rope and advanced it considerably, and it therefore becomes a matter of great manufacturing and commercial interest to know that Mr. Tangring's application for a patent has just been granted by the patent office. The American Steel & Wire Co., Commercial National Bank Building, Chicago, Ill., will manufacture wire rope by the Tangring patent.

A Type of Fireproof Residence.

Efforts have been made in recent years to develop a type of fireproof residence which could be adapted, at a cost not prohibitive, to dwellings of the higher class. The solution of the problem seems to have been reached by Architect H. C. Mauer. Mr. Mauer has designed a reinforced concrete residence, which is to be erected in Beaumont, Texas, and has specified the General Fireproofing Company's (Youngstown, Ohio) pin-connected girder frames for the reinforcement of the beams and girders carrying the floors. Of course the pin-connected girder frames will rest on columns of reinforced concrete, so that the residence will be structurally fireproof throughout. The advantages of such construction and the protection it affords when used in residences are readily perceived. Heretofore efforts at fireproofing a dwelling-house have halted with the use of steel studding, mesh lath and cement siding, but it was realized that these did not form a complete safeguard against fire, although being a far step in that direction. It is Mr. Mauer's intention to complete, at a cost that will compare favorably with straight-wood construction, the Beaumont house designed by him. It is not unreasonable to assume that, this being the case, reinforced concrete will come into great favor for the erection of dwellings of the better class.

TRADE LITERATURE.**Lubricating Problems.**

Among the difficult problems connected with lubrication is that of keeping bearings cool, which means the reduction of friction to a minimum. Albany grease is a lubricant which is said to be effective in this respect and to contain no elements injurious to the metal forming the bearings. It is manufactured by Adam Cook's Sons, 313 West street, New York, and is described in a folder which the company is circulating.

The Ewart Link Belt.

"The Original Ewart Link-Belt: How to Use It and Why," is the title of an interesting pamphlet issued by the Link-Belt Company of Philadelphia, Chicago and Indianapolis. The publication presents facts as to the relative merits of different methods of chain drives, together with diagrams which elucidate the accompanying text and enable the transmitter of power to readily understand the superior features of the Ewart invention.

Strength of Corrugated Bars.

A card now being distributed by the Expanded Metal & Corrugated Bar Co. refers especially to the strength of corrugated bars for reinforced concrete construction. It presents a view of a multi-horse team endeavoring to pull a corrugated bar from its position in the globe. The positive mechanical bond and no excess of metal are features of corrugated bars that appeal to architects, engineers and contractors. Write the company, in the Frisco Building at St. Louis, for a copy of its 1908 catalogue.

Machines for Sheet-Metal Workers.

Manufacturers of sheet-metal products in demand are advised that it is worth their while to investigate the sheet-metal machinery built by Messrs. Loy & Nawrath of 25, 27 and 29 Runyon street, Newark, N. J. This firm is distributing an illustrated catalogue descriptive of its machinery, which includes all kinds of equipments for manufacturing sheet-metal cornices, windows, furniture, etc.; also for the manufacture of mechanical rubber goods, embossing presses and others. The Loy & Nawrath machines are the result of practical experience of many years gained in shops where such machines are required. They are serviceable, convenient and labor-saving, and are effective in doing the work for which they have been designed.

Trident Water Meters.

The Trident water heaters are described and illustrated in a well-printed pamphlet now current. In this publication the language is plain and free from technicalities, telling just how the Trident meter is designed, manufactured and operated. This meter has unique and distinctive features of importance and value in performing the

functions for which a water meter is intended, and the most exacting of water-meter purchasers have fully stated their opinions of its superiority. Municipal engineers, members of water boards, water-works superintendents, water companies and others interested in water meters will find they are serving their best interests by investigating the Trident meters. These are manufactured by the Neptune Meter Co., 120 Liberty street, New York.

Engineering Specialty Co. Electrical Machinery.

Bulletin No. 106 of the Engineering Specialty Co. describes and illustrates the products of but one of the company's departments, covering small direct-current motors, dynamos and their various combinations. The company has a fully-equipped modern factory with every facility for rapid and accurate production and an engineering staff thoroughly familiar with the best engineering practice in the manufacture of standard and special apparatus in the above lines. It has had many years' experience in these and allied lines, and the work of its designers and engineers is well represented throughout the United States, Canada and Europe, both in commercial and government installations, in the telegraph and telephone field and in the electrical trades generally. The Engineering Specialty Co. has offices at 143 Liberty street, New York, and plants at Stamford and Meriden, Conn.

ARMORED CONCRETE CONSTRUCTION.

While concrete has been known for ages as a desirable building material, it was only by imbedding in its mass the necessary amount of steel at the required place to take up the tensile and shearing stresses and thus adding tensile strength to its compressive qualities, that it came into extensive use as a building material. This combination of steel and concrete has become known as reinforced or armored concrete, and, from the nature of its construction, is fireproof. The perishable material—steel—is no imbedded in the concrete that it is almost impossible for it to be affected by fire. Among the numerous systems of concrete construction which are coming into general use is the Hennebique system, employed by the Hennebique Construction Co. of Paris and 1170 Broadway, New York. The company is circulating a catalogue which comprehensively describes armored concrete construction and presents a number of photographs of structures in the erection of which this material has been used.

The Stamford Electric Clock System.

Exact and uniform time in schools, colleges, factories, asylums, hotels, department stores, public buildings, etc., is generally considered an economical necessity. The Stamford electric-clock system, either with or without the automatic program transmitter, as the case may require, is said to insure absolute regularity and furnish uniform and accurate time to every department. It consists broadly of an improved master clock which drives any desired number of secondary clocks at any distance or location, and may be arranged to operate any number of time-recorder clocks. The mechanism used in the master clock has a wide reputation for accurate timekeeping and durability, and will control any number of secondary clocks, time recorders and program transmitters within a limit of 10 to 30 seconds per month. The Stamford electric clock and program system is manufactured and installed by the Engineering Specialty Co., 143 Liberty street, New York, factories at Stamford and Meriden, Conn., and is fully described with other specialties of the company in Bulletin No. 106, now being circulated.

Underground Conduit Construction.

Realizing the economies that can be effected in operating expenses by the installation of underground conduits and the benefit to the community by the removal of unsightly pole lines on the principal streets, the officials of many electric-light and telephone companies in the smaller cities would like to put their wires underground were it not for the fact that the data they have been able to obtain relative to the cost of conduit systems has shown that the necessary expenditure would be unwarranted. Upon investigation it will be found in many cases that the cost figures upon which they have based their conclusions are the costs of conduits for large cities, where the conditions are entirely different from those existing in the smaller communities. In the pages of an interesting illustrated booklet it is intended to describe the methods that may be employed with safety in the construction of an electric-light conduit system for a small company with moderate means. The booklet mentioned is issued by the American Con-

duit Co. of 140 Nassau street, New York, and requests for a copy are invited.

Western Electric Fan Motors.

In a catalogue which it has recently issued the Western Electric Co., 269 South Clinton street, Chicago, Ill., feels that it has listed every fan that is standard to the trade. The publication is Bulletin No. 5362, and while it does not cover all types of fans manufactured, it is said to be as complete a listing as is consistent with daily demands. It is the purpose of the company to issue from time to time circulars and bulletins listing new articles as they are placed on the market, but types not listed will be supplied. Bulletin No. 5362 contains descriptive data and illustrations, with price list, of fan motors and parts which the company manufactures, among these being the Hawthorn universal fan motors for direct-current circuits, Zero desk fan motors, Victor alternating-current desk and bracket fans, Victor oscillating fan motors, ceiling fans, Tuerk alternating-current fans and other types. Reference is also made to the application of motors to ventilating fans and to the fact that the Western Electric Co. has designed a line of motors particularly for this purpose. The motors are series wound, permitting an inherent speed adjustment according to the varying atmospheric conditions.

Syracuse University Stadium.

There are probably few universities in this country which can boast of a location offering such attractive surroundings for their buildings as does the campus of Syracuse University at Syracuse, N. Y. It is situated on a height about one mile from the center of Syracuse, and commands a view of the city, Onondago lake and Onondago valley. The university grounds contain a number of hills, on which are located the different college buildings. In the middle of the west side of the campus the ground forms a large natural hollow, in which the new stadium has been erected. In plan the structure forms an oval, and is 475 feet wide and 670 feet long, with semi-circular ends joined by a straight part 198 feet long. It is of reinforced concrete and has a normal seating capacity of 20,000, and a possible seating capacity of 40,000. The grandstand is located on the south side, and is 106 feet in length. It is covered by a cement roof, supported by steel trusses and columns, and suggests in its design the Gothic style of architecture. With reference to the design of the concrete work, the whole superstructure is carried on piers, which are placed five in a row, the lines of columns being placed 15 or 16 feet apart for the straight portions, and at distances occupying four and one-half degrees for the curved ends. The stadium was constructed by the Consolidated Engineering & Construction Co., 1 Madison avenue, New York, and is fully described in a pamphlet now being circulated by the company, which presents pictures showing the methods of construction.

Of Interest to Cement Manufacturers.

The enormous increase in the use of Portland cement in structural work of all kinds has developed the cement industry into a business of the greatest importance and magnitude. The Western Electric Co. recognized early the possibilities in the growth of this industry and made special investigation of the power problems of the cement mill. As a result the engineers of this company have not only been able to make an exhaustive study of the conditions which prevail at the cement mill, but have also obtained the widest experience in this line of work. Consequently, the Western Electric Co. is prepared to offer the best power apparatus for this service and a complete equipment that has proven its reliability and efficiency. Cement-making machinery is given very little attention, and as a rule the employees are more or less unskilled in the care of machinery. Further, the apparatus operates in a cloud of dust. These conditions require that the motors used in cement-mill service be adapted for the most severe operating conditions. The fact that the Western Electric Co. has in successful operation a large number of cement-mill equipments is evidence that the engineers of this company have developed a line of electrical apparatus suitable for these special requirements. The present facilities of the Western Electric Co. for manufacturing power apparatus are unexcelled. All machinery in the entire plant is electrically driven, a system of individual-motor drive being employed in all except a few cases. Likewise, throughout in the construction of this plant, every effort has been made to make use of the most efficient and convenient methods known in the manufacture of power apparatus of large size. The company is now distributing "Power Equipment for Cement Mills," an illustrated

pamphlet which presents information of interest to cement users. For copies of the publication address the Western Electric Co., Hawthorne, Chicago, Ill.

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters. Items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,
Baltimore, Md., March 25.

In the Baltimore stock market during the past week considerable activity was displayed as compared with the last month. There was also some improvement in prices of speculative issues.

In the trading United Railways common sold from 10½ to 11½; do. trust certificates, 10½ to 11½; do. incomes, 40 to 50; do. funding 5s, 75½ to 76½; do. funding scrip, 75½ to 76½; do. 4s, 86 to 85½; Consolidated Gas 6s, 102½; Seaboard Air Line, 5 to 5½; Seaboard Company common, 5 to 5½; do. second preferred, 10 to 11½; Seaboard 4s, 45 to 49%; do. 10 to 11½; Seaboard 4s, 45 to 49%; do. 10 to 11½; Seaboard 4s, 80 to 81; Cotton Duck 5s, 69½ to 70; G.-B.-S. common, 4; do. 1sts, 41.

Bank stock sold as follows: Bank of Baltimore, 110; Citizens', 31; Exchange, 160; Maryland, 16; Western, 35.

Maryland Casualty sold at 56; Union Trust, 50; Colonial Trust, 27½; Mercantile Trust, 110.

Other securities were traded in thus: Western Maryland Railroad stock, 3½ to 4; Brooklyn Rapid Transit 4s, 70%; Savannah, Florida & Western 5s, 106% to 106½; Virginia Midland 2d, 101; West Virginia Central 6s, 100 to 100%; Baltimore City 3½s, 1930, 94 to 95; do. 4s, 1954, 102½; Atlantic Coast Line common, 65½ to 68%; Northern Central Railway stock, 85 to 85½; Atlantic Coast Line consolidated 4s, 84½ to 84%; do. new 4s, certificates, 60 to 64; do. Connecticut 4s, certificates, 5-20s, 72 to 71; Atlantic Coast Line of Connecticut stock, 165 to 173; do. do. 5s, certificates, 87; Atlanta Knoxville Trac. 1st 5s, 1928, 101; Lake Roland Elev. 5s, 1942, 106; Memphis St. Ry. 5s, 87; Metropolitan 5s, Wash., 1925, 107½ to 109; Norfolk & Ports. Trac. 5s, 88; Norfolk Railway & Light 5s, 101; Norfolk Street Railway 5s, 1944, 101; Richmond Traction 5s, 101; United Railways 1st 4s, 1919, 85%; United Railways Inc. 4s, 1919, 49½ to 49%; United Railways Funding 5s, 76½ to 76%.

Miscellaneous Bonds.

Anacostia & Potomac 5s, 1949, 98; Atlanta Con. St. Ry. 5s, 101; Balt. St. Ry. 5s, 1929, 100; Balt. St. Ry. & Ches. 4½s, 100%; Balt. Trac. 1st 5s, 1929, 108; Central Ry. Con. 5s (Balt.), 1932, 97; Charleston Con. Elec. 5s, 1999, 82; City & Suburban 5s (Wash.), 1948, 97; Knoxville Trac. 1st 5s, 1928, 101; Lake Roland Elev. 5s, 1942, 106; Memphis St. Ry. 5s, 87; Metropolitan 5s, Wash., 1925, 107½ to 109; Norfolk & Ports. Trac. 5s, 88; Norfolk Railway & Light 5s, 101; Norfolk Street Railway 5s, 1944, 101; Richmond Traction 5s, 101; United Railways 1st 4s, 1919, 85%; United Railways Inc. 4s, 1919, 49½ to 49%; United Railways Funding 5s, 76½ to 76%.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended March 25, 1908.

Railroad Stocks. Par. Bid. Asked.

Atlantic Coast.....	100	68½
Atlantic Coast of Connecticut.....	100	171 175
Georgia, Sou. & Fla. 1st Pfd.....	100	70 76
Norfolk Railway & Light.....	25	18
Seaboard Air Line.....	4½	5½
Seaboard Company Common.....	100	5½ 5½
Seaboard Company 1st Pfd.....	100	20
Seaboard Company 2d Pfd.....	100	11
United Ryws. & Electric Co.	50	11 11½
Western Maryland.....	50	3 4

Bank Stocks.

Citizens' National Bank.....	10	30½
Drovers & Mechanics.....	100	240
Farmers & Mer. Nat'l Bank.....	40	48
First National Bank.....	100	20 135
Maryland National Bank.....	20	15
National Bank of Baltimore.....	100	105 115
National Exchange Bank.....	100	165

National Howard Bank.....	16	12	...
National Marine Bank.....	30	40	
National Union Bank of Md.	100	115	...
Trust, Fidelity and Casualty Stocks.			
Colonial Trust.....	50	30	
Fidelity & Deposit.....	50	115 120	
International Trust.....	100	115	
Maryland Trust.....	100	20 47½	
Mercantile Trust & Deposit.....	50	110 115	
Union Trust.....	50	60	
Miscellaneous Stocks.			
Ala. Con. Coal & Iron Pfd.....	100	74	
Con. Cotton Duck Pfd.....	50	13½ 26	
Con. Gas, Elec. Lt. & P. Com.	100	20	
Con. Gas, Elec. Lt. & P. Pfd.....	100	70 95	
Consolidation Coal.....	100	80 90	
G.-B.-S. Brewing Co.	100	3½	
George's Creek Coal.....	100	70	

Railroad Bonds.

Albany & Northern 5s, 1916.....	92	95	
Atlanta & Charlotte Ext. 4½s.....	97	95	
Atlantic Coast Line 1st 4s, 1952.....	85	86	
Atlantic Coast Line 4s, Cts., 1952.....	63	65	
Atlantic Coast Line (Conn.) 5s.....	87	88	
Baltimore & Annapolis S. L. 5s.....	90	96	
Baltimore & Harrisburg 5s, 1936.....	90	...	
Carolina Central 4s, 1949.....	97½	99½	
Charleston & West. Car. 5s, 1946.....	92	94	
Charleston, Col. & Aug. 1st 5s, 1910.....	102	...	
Coal & Iron Railway 5s, 1920.....	91	92	
Columbia & Greenville 1st 5s, 1916.....	100½	103½	
Florida, Car. & Pen. 5s.....	86	96	
Florida Southern 4s, 1940.....	80	...	
Georgia & Alabama 5s, 1945.....	91	93	
Georgia, Car. & North. 1st 5s, 1929.....	94	95	
Georgia Pacific 1st 5s, 1922.....	104	105½	
Georgia, Sou. & Fla. 1st 5s, 1945.....	84½	90	
Maryland & Pennsylvania 4s, 1952.....	84½	90	
Piedmont & Cumberl. 1st 5s, 1911.....	95	102½	
Potomac Valley 1st 5s, 1941.....	102	...	
Raleigh & Augusta 1st 5s, 1926.....	95	...	
Richmond & Danville Gold 6s, 1915.....	103½	...	
Savannah, Fla. & West. 5s, 1934.....	106	107	
Seaboard Air Line 4s, 1950.....	81	85	
Seaboard Air Line 5s, 10-year, 1911.....	100	...	
Seaboard & Roanoke 5s, 1926.....	100	...	
Silver Spgs., Ocala & Gulf 4s, 1918.....	84	90	
Southern Rwy. Con. 5s, 1904.....	87	...	
Virginia Midland 2d 6s, 1911.....	101	...	
Virginia Midland 3d 6s, 1916.....	100	...	
Virginia Midland 4ths, 1921.....	98	...	
Washington Terminal 3½s.....	87½	88½	
Western Maryland 4s, 1952.....	62	63½	
Western Maryland 2d 4s, 1948.....	29½	31	
Western North Car. Con. 6s, 1914.....	102	...	
West Va. Central 1st 5s, 1911.....	100	101	
Wil. Col. & Aug. 6s, 1910.....	102	...	
Wilmington & Wel. Gold 5s, 1935.....	106½	...	

Street Railway Bonds.

Anacostia & Potomac 5s, 1949.....	98	99	
Atlanta Con. St. Ry. 5s.....	101	102	
Balto. City Pass. 5s, 1911.....	100	...	
Balto. St. P. & Ches. 4½s.....	100	...	
Balto. Trac. 1st 5s, 1929.....	108	...	
Central Ry. Con. 5s (Balt.), 1932.....	92	...	
Charleston Con. Elec. 5s, 1999.....	82	84	
City & Suburban 5s (Wash.), 1948.....	97	98	
Knoxville Trac. 1st 5s, 1928.....	101	...	
Lake Roland Elev. 5s, 1942.....	106	...	
Memphis St. Ry. 5s.....	87	...	
Metropolitan 5s, Wash., 1925.....	107½	109	
Norfolk & Ports. Trac. 5s.....	88	...	
Norfolk Railway & Light 5s.....	88	...	
Norfolk Street Railway 5s, 1944.....	101	107	
Richmond Traction 5s.....	101	...	
United Railways 1st 4s, 1919.....	85%	86	
United Railways Inc. 4s, 1919.....	49½	49%	
United Railways Funding 5s.....	76½	76%	

Miscellaneous Bonds.

Atlanta Con. 5s, 1947.....	92½	...	
Consolidated Gas 6s, 1910.....	102½	103	
Consolidated Gas 5s, 1939.....	110	...	
Consolidated Gas 4½s.....	87½	87½	
G.-B.-S. Brewing 1sts.....	100	...	
Baltimore Electric 5s.....	70	72	
Baltimore Consolidated Electric 5s, 1911.....	100	...	
Baltimore Sparrows Point & Chesapeake 4½s, 92.....	100	...	
Northern Central 5s B, 110.....	100	...	
Georgia, Carolina & Northern 5s, 94 to 94½.....	100	...	
Western Maryland 2d 4s, 30.....	100	...	
Charleston & Western Carolina 5s, 99.....	100	...	
United States Steel common, 36.....	100	...	
Charleston Consolidated Electric 5s, 83.....	100	...	
Maryland Telephone 5s, 80.....	100	...	
4s, 74½; Virginia Century, registered, 91; Virginia new 3s, 89; Georgia & Alabama Consolidated 5s, 88 to 91; Georgia Pacific 1sts, 105½; Western Maryland 4s, 62½; Wilmington & Weldon 5s, 106½; Houston Oil common, 6½ to 8½; Anacostia & Potomac 5s, 98; City & Suburban (Washington) 5s, 97; Columbia & Greenville 1sts, 103½; Metropolitan (Washington) 5s, 108½; Seaboard & Roanoke 5s, 100; Baltimore Sparrows Point & Chesapeake 4½s, 92; Northern Central 5s B, 110; Georgia, Carolina & Northern 5s, 94 to 94½; Western Maryland 2d 4s, 30; Charleston & Western Carolina 5s, 99; United States Steel common, 36; Charleston Consolidated Electric 5s, 83; Maryland Telephone 5s, 80.			

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending March 23.

Bid. Asked.

Abbeville Cotton Mills (S. C.).....	95	...	
Aiken Mfg. Co. (S. C.).....	100	...	
American Spinning Co. (S. C.).....	145	148	
Anderson Cotton Mills (S. C.).....	70	...	
Arkwright Mills (S. C.).....	105	110	
Augusta Factory (Ga.).....	100	...	
Avondale Mills (Ala.).....	115	125	
Belton Mills (S. C.).....	110	...	
Bibb Mfg. Co. (Ga.).....	125	132½	
Brandon Mills (S. C.).....	125	130	
Cabarrus Cotton Mills (N. C.).....	120	...	
Chadwick Mfg. Co. (N. C.) Pfd.....	101	...	
Chiquila Mfg. Co. (S. C.).....	120	122½	
Clifton Mfg. Co. (S. C.).....	102	106	
Clifton Mfg. Co. (S. C.) P			

8. *ite* at ns 6; em ur ch 4; in end re re 00 er is ee